

FEMALE ADOLESCENTS' KNOWLEDGE OF ORAL
CONTRACEPTIVES

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DEDICATION

To my family, who helped me to overcome any obstacle.

To my grandmother, Dorothy Barnes, who believes that women should be given the opportunity to pursue their desires.

To my brother, Frederick Boyd, with love and complete understanding.

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The purpose of the study was to determine whether female adolescents in West Dallas had knowledge of the correct use of oral contraceptives, and whether there was a difference in this knowledge between those who were taking birth control pills and those who were not. The participants were 42 adolescent females. Fourteen (33%) of the adolescent females were using birth control pills and 28 (67%) were not. The instrument used to collect data was the Knowledge of Oral Contraceptives, developed by the researcher, and administered in January 1993 to February 1993. The t-test was used to analyze the data. Results revealed no significant difference in knowledge between the two groups.

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CHAPTER I

INTRODUCTION

Teenage childbearing was common in the United States during the baby boom years after World War II (Moore, Snyder, & Daly, 1992). During the 1960s and early to mid-1970s, teen birth rates fell and leveled off with little change between 1976 through 1986. Since 1986, birth rates have increased by 19% among teens aged 15 to 17 years, and by 7% among teens aged 18 to 19 (Moore et al., 1992). There is no simple or clear explanation for this increase of birth rates among teens. However, one factor definitely associated with the growth is an increase in the number of teens who have sexual intercourse.

In an effort to counteract the increasing teen pregnancy rate, school-based clinics have been expanding nationwide since the 1970s. Most school-based clinics provide a full range of general health services, including counseling and health education, with family planning as a major component (Dryfoos, 1985a).

According to the Children's Defense Fund (cited in Community Council of Greater Dallas [CCGD], 1990), Texas had the third highest rate of pregnancy among the states

for adolescents aged 15 to 19 years in 1988. The total number of live births to teens under age 20 in Texas for 1989 was 47,172 (CCGD, 1990). In 1989, Dallas County reported 5,459 live births to females under 20 (CCGD, 1990). The Dallas Independent School District (DISD) reported that 938 pregnant students were enrolled during the academic year 1989-1990. This was an increase from 843 pregnant students during the academic year of 1988-1989 (CCGD, 1990).

In 1971, an agreement was made between the DISD and the University of Texas Southwestern Medical School to develop health clinics on the school campuses located in low income areas. The first comprehensive adolescent health clinic, the West Dallas Youth Clinic, was established in 1971 at Pinkston High School in West Dallas (Children and Youth Report, 1982). One of the main objectives of this clinic was to reduce the pregnancy rate at this school by providing family planning services to its enrolled students. Family planning provided counseling and information concerning oral contraceptives and sexual activity to female students interested in preventing pregnancy. Because the pregnancy rate at the West Dallas Youth Clinic has increased continuously despite such counseling and dispensing of oral contraceptives, one

wonders if noncompliance with the use of prescribed oral contraceptives is related to female adolescents lack of knowledge concerning the correct use of oral contraceptives.

Statement of the Problem

The problem of this exploratory study was to determine whether female adolescents who were registered with the Community Oriented Primary Care (COPC) clinic in West Dallas had knowledge of the correct use of oral contraceptives, and whether there was a difference in this knowledge between those who were taking the pills and those who were not.

Purpose of the Study

The purpose of this study was to compare female adolescents who were taking prescribed oral contraceptives to those who were not in order to determine whether there was a difference between the two groups concerning their knowledge of the correct use of oral contraceptives.

Hypothesis

The following null hypothesis was tested at the .05 level of significance:

There was no significant difference in knowledge about the correct use of oral contraceptives between adolescent

females who were taking oral contraceptives and those who were not.

Definition of Terms

For the purpose of this study, the following terms were defined:

1. Adolescent females. Girls between the ages of 13 and 18 years.
2. Community Oriented Primary Care (COPC). A Dallas County organization which is responsible primarily for school-based clinics in the Dallas Independent School District.
3. Family Planning Services. Clinic-provided counseling and educational information concerning sexual activity, contraceptives, STDs and treatments, and pregnancy, as well as referrals to other agencies concerning abortion or adoption (Dryfoos, 1985).
4. Knowledge. "The clear and certain comprehension of truth" (Patterson, 1989, p. 128).
5. Nonusers. Female adolescents who are not using birth control pills to prevent a pregnancy (researcher's definition).
6. Oral Contraceptives (Birth Control Pills). Hormonal pills made of estrogen and/or progesterone which

control ovulation in females, thereby preventing pregnancy with 99% effectiveness (Orshan, 1988).

7. Teenage pregnancy. Pregnancy in a female under the age of 20.

8. Users. Female adolescents who are using birth control pills to prevent a pregnancy (researcher's definition).

Limitations

This study was limited by the following: .

1. The reading ability of the participants.
2. The accuracy and honesty with which the participants responded to the questionnaire.
3. The willingness of the adolescent females to participate in the study.
4. The willingness of their parents to have them participate in the study.
5. The sampling technique which may have limited generalizability of the results to the study population.

Justification

Edelman, Pittman, and Pittman (1986) reported that adolescent parenthood may not be a problem in itself, but because it too often precedes the completion of education or securing employment, and it makes the transitional steps

more difficult to achieve. The problem is further compounded because adolescent parenthood falls disproportionately on those who lack the knowledge, skills, and opportunities to become self-sufficient adults.

Many agencies promote sexual abstinence to teenagers in order to reduce the adolescent pregnancy rate. Although adolescent sexual abstinence is desirable, the researcher thinks that greater emphasis needs to be placed on correct and effective use of contraceptives in order to reduce the pregnancy rate among adolescents who remain sexually active.

This study evolved from a perceived need to demonstrate that ongoing education concerning correct use of oral contraceptives is necessary. Teenagers cannot be expected to prevent pregnancy using oral contraceptives if they do not have accurate knowledge on which to act.

CHAPTER II

REVIEW OF LITERATURE

Literature reviewed as a foundation to this research was related to adolescent sexuality and pregnancy; adolescent use of contraceptives; adolescent pregnancy and sex education; and school-based clinics. Statistics and other information regarding adolescent pregnancy and school-based clinics in Dallas, Texas, also were reviewed. The literature reviewed was published between 1982 and 1992.

Adolescent Sexual Activity and Pregnancy

Since the 1950s, there has been a steady increase in the proportion of unmarried females who become sexually active during their adolescent years. This increase has been greater among white than black females, although adolescent blacks are more likely to become sexually active than adolescent whites (Durant, Jay, & Seymore, 1990). Moore et al. (1992) reported that sexual intercourse among females aged 15 to 19 years increased from 29% to 52% between 1970 and 1980. Surveys identified teens with the

least resources as more likely to engage in sexual activity earlier (Harris & Associates, 1986).

Dryfoos (1985b) reported that in the United States at the time of his study there were 5 million sexually active teens and 1.15 million pregnancies resulting in 460,000 abortions, 153,000 miscarriages, and 537,000 births. Most of these conceptions were unplanned; yet, in the face of low school achievement and limited employment opportunities, adolescent females perceived little or no reason to terminate their pregnancies or prevent the next ones. In addition, most sexually active female teenagers waited an average of one year after the initial sexual experience before seeking a family planning clinic, and often their first visit was for a pregnancy test (Dryfoos, 1985b).

Edelman and associates (1986) reported that the United States had high numbers of teen parents because Americans implore teens to delay sexual activity, but they refuse to give teens the capacity to delay parenthood. Teens who were behind in school and/or lacked basic skills were often the same teens who initiated sexual activity earlier and were at greater risk for adolescent parenthood. Adolescent parenthood was identified as a problem disproportionately affecting teens who would have a difficult time completing

school, securing employment, and creating a stable relationship even without the added burden of parenthood.

Randolph and Gesche (1986) reported that pregnancy in adolescents was not a technical or demographic issue. It had cultural and practical dimensions. The immediate and long-range consequences of an unplanned pregnancy included poverty; stress; suboptimal environment; nutritional inadequacy; and, frequently, late or no prenatal care which may result in babies with low birth weight, prematurity, and developmental disabilities.

It has been estimated that every day in the United States, 7,742 teens become sexually active, 2,753 teenagers become pregnant, and 1,287 teens give birth (CCGD, 1990). There was a total of 472,623 live births in 1987 to women under the age of 20 in the United States, which was equal to 12.4% of the total live births born (CCGD, 1990). In 1989, Texas ranked second in the nation in the number of live births to teens aged 19 and under (National Center for Health Statistics, 1989). In 1990, 883,916 young women aged 13 to 19 lived in Texas, and 73 per 1,000 (64,581) of those became pregnant with 53 per 1,000 (46,683) resulting in live births. These statistics included 4 girls who were 11 years old and 24 who were 12 years old (Texas Department of Health, 1990).

Adolescent pregnancy is one of the most pressing, persistent, and poignant problems facing society (Yoos, 1987). According to the data from the Allen Guttmacher Institute (cited in Edelman et al., 1986), the United States leads nearly all other developed nations of the world in rates of teenage pregnancy, abortion, and childbearing, even though sexual activity is comparable to that in other developed countries. The main difference between the United States and other developed nations is the higher occurrence of teenage pregnancies among American females under the age of 15 years. There were 10,311 live births to American females under age 15 in 1987. In 1990, it was reported that 1 teen in 10 became pregnant in America each year in comparison to fewer than 1 teen in 20 in England, France, or Canada, and 1 in 30 in Sweden (CCGD, 1990).

Data on teenage sexual behavior indicate that approximately 4,590 of American females aged 15 to 19 years are sexually active before marriage, and an estimated 36% become pregnant within two years of initiation of sexual activity (Bar-Cohen, Lia-Hoagberg, & Edwards, 1990). The younger the adolescent at initiation of sexual intercourse, the longer the delay time in using contraceptives, thereby resulting in greater risk for pregnancy. The delay time

was defined as the period between first intercourse and first visit to a family planning clinic for birth control. Studies have shown that teens typically wait an average of one year before seeking a physical form of contraception (Bar-Cohen et al. 1990).

Trussell (1988) reported that the teenage pregnancy rate was high in America because a minority of sexually active women use contraceptives consistently to avoid pregnancy. Also, he stated that attitudes, sexual behaviors, and correct contraceptive use were determinants of whether or not a female adolescent became pregnant. Trussell's first suggestion to solve the adolescent pregnancy problem was the prevention of sexual activity in the adolescent population. Thus far, no effective methods have been identified even to reduce sexual activity in the adolescent population. His second suggestion directed at reducing adolescent pregnancy rate was to promote contraceptive use in the adolescent population.

Adolescent Use of Contraceptives

Adolescent unmarried females who are sexually active are at high risk for unintended pregnancy because they tend to delay initiation of an effective contraceptive (after first intercourse) and because they tend to use birth

control inconsistently once they adopt a contraceptive method (Durant et al., 1990).

Although it is controversial, adolescent contraception is a topic of concern for parents, teenagers, schools, and health professionals. Adolescents need assistance in determining if they are ready for sexual intimacy. If they are, they must learn to assume responsibility for their sexual behaviors. Pregnant teens indicate several reasons for their lack of birth control: (a) lack of knowledge concerning reproductive physiology, (b) lack of money to pay for birth control health services, and (c) lack of desire to use contraceptives. Many teens avoid the use of contraceptives because they consider them messy or immoral (Babington, 1984).

Twenty percent of initial pregnancies occur during the first month of sexual activity. Therefore, if adolescent contraception is to succeed, teenagers must be educated prior to beginning sexual activity. Adolescents need detailed information and the provider should use terminology that they can understand. To assure that use of contraception is effective the provider and users should establish a relationship so both parties feel a shared responsibility to prevent the adolescent from conceiving (Babington, 1984). Also, the adolescent should be given

specific instructions on how to take the pill. She should be told that the pill is most effective when taken everyday. If taken at bedtime, she will experience fewer side-effects (Babington, 1984).

In order to increase the compliance rate in adolescent females, teens should be given simple information prior to initiation concerning the effectiveness and side-effects of birth control pills. The adolescent should be told of mild side effects such as nausea and vomiting which could last for 3 to 6 months after starting the pill. If the adolescent misses a dose for one day, she should be instructed to take the pill as soon as possible. If two doses are missed, she should be told to double her dose for one or two days. If three or more doses are missed, she should be told to stop taking the pill and use some other form of contraception and to resume the pills after menses (Babington, 1984).

Pollock (1992) stated the ideal teen contraceptive should be 100% effective, have no associated risk or side effects, and be accessible, inexpensive, and easy to use. Since no contraceptive method can fulfill these requirements, the satisfaction of the individual teen should be met in order to prevent pregnancy.

The oral contraceptive pill is the most effective nonsurgical method of contraception (Mosher & Pratt, 1990) and the most popular contraceptive method among teenagers and women under 20. While easy to use, the pill's effectiveness is user dependent and therefore susceptible to user failure (Pollock, 1992).

Additionally, Pollock (1992) listed several key points concerning the birth control pills that the adolescent female should understand. First, the adolescent should be told that the pill does not prevent sexually transmitted diseases. Oral contraceptives with condoms provide the best combination of contraceptive protection and effective prophylactics against STDs. Also, teens should be informed that using oral contraceptives will result in a lighter and a better regulated menstrual cycle than those menstruating naturally.

Adolescents should be told about the misconceptions concerning birth control pills, cancer, and infertility. Studies have reported a 50% decrease in the incidence of endometrial cancer in users of oral contraceptives when compared to nonusers (Pollack, 1992). Reports have also shown that birth control pills do not lead to infertility. Adolescents who discontinue the oral contraceptive resume

the same menstrual cycle pattern they had prior to starting the pills (Pollack, 1992).

Franklin (1990) stated that all women need to know the danger signs of deep vein thrombosis (severe leg pain) since the occurrence is four times greater for oral contraceptive users. She went on to say that adolescents should be told about the mild side effects of oral contraceptives which include oily scalp, acne, and a slight weight gain.

Nathanson and Becker (1985) studied the interaction between clinic staff members and their influence on teenage contraceptive behavior. The underlying hypothesis was that the client's subsequent compliance with contraceptive advice would depend on the expectations of the staff and client, and the extent to which these expectations either would harmonize or conflict. The results showed that the quality of interaction between clinic staff members and female adolescents did influence compliance with contraceptive advice. In situations where the authoritative guidance was accepted and expected, levels of effective contraceptive use increased substantially.

White (1987) stated two factors which were associated with the increase of unplanned pregnancies among female adolescents. These were early-age menarche associated with

earlier fertility age at first coitus, and the failure to use an effective contraceptive. According to White (1987), unplanned adolescent pregnancies occur during the first six months. The adolescent females who initiated contraceptive use stated that they had received a "cue" or hint from someone close who had told them they might need some contraception. The most frequent internal cue was a late menstrual cycle. The most common external cues were learning of an unplanned pregnancy or abortion of a close friend or school mate, and/or having someone in their immediate environment (usually a mother, sister, or girlfriend) suggest the use of birth control pills. White's (1987) study also revealed that young women who lived with their mothers only, had no older sisters, and perceived that their mothers approved of their sexual activities initiated contraceptive use earlier than those females who thought that their mothers would disapprove of their sexual activities.

From a medical and public health perspective, prevention of adolescent child-bearing is the ideal situation. However, the early age of biological maturity and sexual activity among adolescents is not likely to change in the foreseeable future; therefore, prevention through contraception becomes a critical issue. It has

been suggested that many adolescents get pregnant not because they lack relevant information, but because they lack cognitive and behavioral skills necessary to use the information (Yoos, 1987). Although adolescents are exposed to a modicum of sexual facts, they still are immersed in sexual fantasy. They fail to use contraceptives because they cannot imagine that pregnancy and childbearing can happen to them.

According to Yoos (1987), past research has shown that lack of access to contraceptives and the developmental stage of the adolescent are partial determinants of the contraceptive behavior of teenage girls. Myths and misconceptions, particularly surrounding the birth control pills, preclude effective contraceptive use. Inadequate information and inappropriate beliefs among youths concerning sexual contraception are partial determinants of whether a female adolescent becomes pregnant. However, possession of knowledge does not guarantee success with the prevention of pregnancy. The information provided concerning birth control and the guidance offered to teens must be grounded in an understanding of their psychological as well as physical development (Yoos, 1987).

Reis and Fymchyshn (1992) conducted a study which assessed changes in contraceptive knowledge of 58 white

female undergraduate college students. The inspiration for this study was the fact that American college women between the ages of 18 and 24 experienced substantial problems with contraceptives. Within this group, oral contraceptives were most frequently chosen as the method of birth control. Failures in the prevention of pregnancy were attributed to incorrect use and discontinuation of use of the pill; 25-50% of young women stopped taking the pill within 12 months of beginning use. Approximately 40% of these students faced unplanned pregnancy because of misuse of the selected contraceptive method.

While lack of knowledge about contraceptives and conception are factors that place a sexually active adolescent female at risk for her first pregnancy, little is known about the knowledge levels of adolescent women who already have children. It is known that 15% of adolescent females who have been premaritally pregnant have repeated pregnancies in the next 12 months. Many of these pregnancies are unwanted (Panzarine & Gould, 1988).

In 1988, Panzarine and Gould assessed the knowledge of urban black adolescent mothers regarding contraceptive use and conception. The sample consisted of 62 black adolescent mothers. An abridged form of the Sex Knowledge Scale was used with one item concerning knowledge about

birth control. Only 17 of the adolescent mothers answered more than one-half of the items on the knowledge scale correctly. Even though they had experienced a previous pregnancy, the study indicated that the sample needed further education regarding an effective method of birth control and conception.

Adolescent Pregnancy and Sex Education

Over the past two decades, teen pregnancy has become less of a stigma, and public schools have become increasingly involved in the problem of teen pregnancy and parenthood. In 1972, the passage of Title IX of the Education Amendment prohibited schools from expelling pregnant and parenting students and encouraged schools to develop programs that provided the enrollee the opportunity to finish high school and delay subsequent pregnancies. Introducing sex education into schools may be difficult unless concrete facts are available to allay parental fears about the influence of such programs on teen sexual behavior. To be successful, intervention strategies should be as varied as the adolescents themselves (Stevens-Simons & Beach, 1992).

According to the National Survey of Family Growth, during the 1970s and 1980s, 79% of all live births to teens

were unintended (cited in Moore et al., 1992). During this time period, sex education focusing on reproductive physiology and female birth control methods was promoted in schools with the hopes of reducing the teenage pregnancy rate. Dunn (1982) believed that teaching sex education based solely on reproductive physiology and contraception made the adolescent female solely responsible for preventing pregnancy with virtually no meaningful concern expressed about teenage fatherhood.

MacDonald (1987) stated that sex education was essential for combating the adolescent pregnancy rate. However, according to MacDonald, the curricula currently taught in this country frequently omitted several social factors which also contributed to the dramatic increase in the teen pregnancy rate. These factors included demise of the family structure, increased alcohol use among teens, peer pressure, and low self-esteem. If the social factors improve, and if sex education is stressed equally to both male and female adolescents, then a decrease in the teen pregnancy rate may occur. This also could be the first step needed to start the "change" reaction to the adolescent population. In the meantime, the "eighteenth century" concept (Dunn, 1982, p. 612) which places the sole responsibility of reproduction on the female needs to be

considered. In light of this concept, if the teenage pregnancy rate is to decrease, female adolescents need to improve their complacency concerning their effective use of contraception.

School-Based Clinics

For a variety of reasons, the health care needs of teens in the United States are not being met. Approximately 37 million Americans are without health insurance, and one-third of these uninsured are children (Igoe & Giordano, 1992). Nearly 12 million of the nation's children under 18 have neither private nor public (medicaid) health insurance coverage. These children are turned away from health care facilities because there is no assurance that their health care cost will be paid (Igoe & Giordano, 1992).

To combat this problem, many communities have developed innovative approaches for providing health care to the adolescent population. One of the most popular approaches used thus far by different agencies and communities is the development of school-based clinics. The number of school-based clinics grew from a single site in 1970 to 120 operating clinics in 1988 (Lovick, 1988).

During the 1989-1990 school year there were a reported 203 school-based clinics in 33 states (Waszar & Neidell,

1991). The average enrollment of schools with school-based clinics was 1,441. Fifty-one percent served senior high schools; 13% served junior/middle schools, and 19% served elementary schools (Waszar & Neidell, 1991). School-based health centers emerged as a promising means of dealing comprehensively with the health needs, risks, and behaviors of the community's youth (Keenan, 1991). Risk taking behaviors which include early sexual involvement and associated pregnancy, early involvement in alcohol and illegal drugs and other violence. Although school-based clinics have not addressed all the problems confronting adolescents, they have the potential to resolve a substantial share of their needs (Keenan, 1991). Despite this potential, it has taken 20 years for the school-based clinic concept to grow. Interest in the concept has grown as the adolescent pregnancy prevention becomes an increasingly compelling issue on the national agenda (Keenan, 1991).

Many school-based clinics emulate the St. Paul (Minnesota) Program which was founded in 1973 by Laura Edwards (cited in Dryfoos, 1985a), an obstetrician who became concerned about the consequences of high rates of teenage childbearing for young mothers and their babies. Edwards received permission from the local school board to

offer prenatal and postpartum care, along with other reproductive health care services, to students enrolled in inner-city high schools. Through the years of operation, more components of care were added and new sites were opened.

By 1988, most school-based clinics offered a comprehensive range of services which included general health assessment, counseling, and related mental health services. One of the major components of school-based clinics remained the reproductive health care services, which included family planning counseling, screening, and treatment for sexually transmitted diseases, contraception education, and follow-up for contraceptive uses (Lovick, 1988). Since the negative consequences of teenage pregnancy were well documented, school-based clinics recognized that effective pregnancy prevention required teaching young people about contraception before they became sexually active (Lovick, 1988).

Of the many different services that school-based clinics provide, family planning has sparked the most controversy. Although 60% or more of school-based clinics provide counseling referral or follow-up for family planning methods, only 28% write prescriptions for birth

control pills and fewer than 20% dispense any kind of contraceptives on site (Waszar & Neidell, 1991).

The primary goal of school-based clinics is to improve the overall physical and mental health of teenagers. Included in this goal is an emphasis on the reduction of the rate of teenage pregnancy. Because teenage pregnancy has been identified as a major barrier to the completion of high school, all school-based clinics include a family planning component. According to Heller (1988), teenagers do not want to be labeled as sexually active by the community; therefore, they do not seek family planning services when they know they should.

School-based clinics are more acceptable to teens because their peers use the clinics, thereby encouraging them to do the same. Perhaps the greatest strength of school-based clinics is their location either on the school campus or within the school building (Heller, 1988). Because of the rapid growth, acceptance, and support from the community, schools and teenagers, Kirby (1986) suggested that school-based clinics are effective at preventing unintended pregnancies in the adolescent female population.

Zabin, Hirsch, Smith, Street, and Hardy (1986) conducted a study in Baltimore (Maryland) on a variation of

Laura Edwards' school-based clinic whose primary purpose was the prevention of pregnancy among inner-city adolescents. The results suggested that the Baltimore clinic had an effect on adolescents' knowledge and behaviors resulting in a postponement of first intercourse by an average of seven months among girls attending the clinic for a full three years. These findings contradicted the criticism that access to contraceptive services encourages earlier sexual activity.

Even though the number of school based clinics is increasing in the United States, the number of unintended pregnancies continues to increase also. Adolescents continue to get pregnant because they lack cognitive and behavioral skills necessary to use the information available to them concerning contraception (Yoos, 1987).

After several years of experience, Dryfoos (1988) asked the question: Do school-based clinics hold promises for pregnancy prevention? Evidence from the field suggests that the performance of school-based clinics in regard to sexuality issues varies greatly. However, in clinics in which family planning is perceived as a service integrated with comprehensive care and in which the staff members are committed to preventing teenage pregnancies, utilization of contraception rates were higher than other

clinics that do not emphasize family planning (Dryfoos, 1988).

In 1989, Dallas County reported 5,459 live births to females under 20 years old with 3,704 births to teens who lived within Dallas city limits (CCGD, 1990). The Dallas Independent School District reported 1,022 pregnant students enrolled during the 1990-1991 academic year, and 913 pregnant students during the 1991-1992 academic year (Adams & Marcontel, 1992). One possible explanation for this reduction in reported pregnancy rates may be the expansion of school-based clinics in the Dallas Independent School District.

Dallas has the oldest and most comprehensive school-based health services in the United States. Before 1990, only two high schools in the Dallas Independent School District had established school-based clinics: Pinkston High School in 1971, and Madison High School in 1982. Now the school-based services of Community Oriented Primary Care (COPC) have been expanded to four additional high schools and two middle schools, and expansion of these services to two more high schools in the DISD is planned. With the exception of the COPC clinic in West Dallas, these clinics are staffed with a physician assistant or nurse practitioner, a clerk/aide, and a social worker. Services

include physical exams, reproductive services, treatment of chronic conditions, and acute care (Dallas County Hospital District, 1992).

The clinic on the Pinkston campus in West Dallas, is the oldest continuous-service, school-based clinic for adolescents in the country. This clinic is staffed with a full-time pediatrician, two physician assistant/nurse practitioners, two social workers, one registered nurse, one medical assistant, and three clerks. Health care is provided to adolescents aged 12 to 18 years. Specific services include preventative screenings, acute care, chronic care, prenatal services, social services, laboratory services, and adolescent reproductive services. Reproductive services consist of (a) sexual development and sex education, (b) choices of contraceptives (except IUD), (c) pregnancy testing, (d) problem pregnancy counseling, and (e) venereal disease testing and treatment (Rosser, 1991):

The pregnancy rate for adolescents in West Dallas remains two times the national average today, and the second highest of any community in Dallas County. However, data show the rate of teen deliveries among 17 to 18 year olds dropping from 235 per 1,000 females in West Dallas to 185 per 1,000 females in West Dallas (Rosser, 1991).

Summary

Many agencies have tried several programs with the hopes of reducing the rates of teen pregnancies. Of the different programs, school-based clinics seem to be the most accepted by schools, communities, and teens resulting in an expansion of this program in the last few years nationwide. In 1990, 94% of school-based clinics provided some level of reproductive health service including counseling on birth control methods (94%), sexually transmitted diseases (STDs) treatment (90%), referral for birth control methods and examination (71%), gynecological examination (70%), and follow-up care for contraception (78%) (Santelli et al., 1992).

Since adolescents are inconsistent users of birth control pills, contraceptive teaching should be concrete and concise with frequent follow-up visits in order to increase the compliance of taking birth control pills with the adolescent females.

CHAPTER III

METHODOLOGY

The adolescent pregnancy rate remains high even among teens who are taking birth control pills. The researcher believed that if accurate knowledge concerning correct use of oral contraceptives would be greater among teenagers taking them, then effective compliance would increase and the pregnancy rate would decrease. More effort may be needed to provide accurate information about correct use of birth control pills to female adolescents seeking to prevent pregnancy. The purpose of this study was to determine whether female adolescents registered with the Community Oriented Primary Care (COPC) school-based clinic in West Dallas have knowledge of the correct usage of oral contraceptives, and whether there was a difference in this knowledge between those who were taking birth control pills and those who were not. This chapter describes methods used in the study, including: population and sample selection, procedures, instrumentation, and treatment of the data.

Population

The targeted area for the COPC West Dallas clinic is composed of seven census tracts which cover approximately 14 square miles (Rosser, 1991). Each of these census tracts has been designated by the federal government as a medically underserved area as well as a health professional shortage area. In 1990, West Dallas had a population of 27,439, a decline of 14.2% from the 1980 census. West Dallas is a relatively young population with 9,677 (35%) of the residents below the age of 19. The population is 43% African-American, 52% Hispanic, and 5% other (Rosser, 1991).

The population for this study was adolescent females aged 13 to 18 years who were registered with the West Dallas COPC clinic. The sample consisted of 42 females who voluntarily participated in this study. The West Dallas COPC clinic (located at 3131 Hampton) was selected for this study because it is a comprehensive school-based clinic for which family planning services constitute an important component. Services are available to adolescent females aged 12 to 18 years.

Procedures

Primary data for the research study were obtained from the responses of participating adolescent females, to the

questionnaire called Females' Knowledge of Oral Contraceptives. Prior to the research, permission to conduct the study at this site was obtained from the director of COPC clinics in Dallas County (see Appendix A).

The following steps were taken to obtain the data needed for this study. First, individual adolescent females were identified as potential study subjects by a medical assistant. If their parents were with them, the researcher would invite them to her office. The purpose and procedures of the study were explained to the parents in order to obtain verbal consent for their daughters to participate. If the parents agreed, they were asked to sign the Parental Consent Form (see Appendix B). Then the researcher explained to the study participants the purpose and procedures of the research, and that their participation was strictly voluntary, and that they had the right to refuse to participate even though their parents had given their consent. If the subjects agreed to participate and signed the Subjects' Consent Form (see Appendix B), verbal instructions were given concerning completion of the questionnaire, voluntary participation, and protection of their anonymity.

If a subject's parent was not with her, then a consent form was given to her with instructions to have a parent

sign the form, and to return the signed form to the medical assistant. Once the form was returned, the medical assistant gave it to the researcher. The parent's signature was confirmed via telephone before the subjects signed the consent form and then verbal instructions were given them.

The questionnaires were administered by the researcher in her office. After each subject signed the consent form, she was allotted 5 minutes to read the written instructions (see Appendix C) which further reinforced the verbal instructions. The researcher personally gave the questionnaire to each participant, and remained with her and answered any questions while she completed the questionnaire. It took approximately 10-15 minutes to complete the questionnaire. Upon completion and return of the questionnaire, the researcher provided each subject with an opportunity to ask any questions. The subjects were referred to the West Dallas COPC clinic if they wanted to obtain further information or counseling regarding birth control pills.

Instrumentation

The researcher developed a questionnaire to collect data concerning female adolescents' knowledge of oral contraceptives as no such existing instrument was found.

The two-part instrument was entitled Knowledge of Oral Contraceptives/Birth Control Pills (see Appendix D).

Part 1 of the questionnaire collected demographic information, such as student's grade, age, race/ethnicity, sexual activity, contraception used (if any), and number of children (if any). Part 2 of the questionnaire consisted of 14 statements concerning knowledge about birth control pills. The subjects responded to the statements by circling either "T" for true, or "F" for false. Responses were scored by the total number of correct answers to Part 2 to measure the level of subjects' knowledge about oral contraceptives (birth control pills).

To determine validity of the questionnaire, it was evaluated by six experts who work in or have knowledge of school-based clinics, and who prescribe or have accurate knowledge about the correct use of oral contraceptives. The reviewers consisted of a professor at the University of Texas at Arlington Nursing School; four nurse practitioner instructors who work at the Health Care Nurse Practitioner Program on Butler Street in Dallas, Texas; and a physician's assistant who works at the West Dallas COPC clinic (see Appendix E); a statistical consultant and expert in instrumentation who is a faculty member at Texas

Woman's University; and the researcher's committee chair and members for this study.

A pilot study was conducted among adolescent females who attended North Park Christian Methodist Episcopal Church. The Spearman Rank Correlation was used to determine the test-retest reliability of the instrument resulting in a correlation coefficient of .91 which was considered to be an acceptable level.

Treatment of the Data

Demographic characteristics of the study participants were described in frequencies and percentages. The t-test was utilized to determine if there was a significant difference in the number of correct responses to Part II of the questionnaire between the adolescent females who were taking birth control pills and those who were not. T-test results was tested at the .05 level of significance.

CHAPTER IV

ANALYSIS OF THE DATA

The problem of this study was to determine whether female adolescents who were registered with the Community Oriented Primary Care (COPC) clinic in West Dallas had knowledge of the correct use of oral contraceptives, and whether there was a difference in this knowledge between those who were taking the pills and those who were not. The statistical analysis and descriptive data are reported in this chapter.

Descriptive Characteristics of Subjects

The subjects in this study were 42 adolescent females who were registered with the West Dallas COPC clinic. Fourteen (33%) of the adolescent females were using birth control pills and 28 (67%) were not. For the tables, they were users (taking birth control pills) and non-users (not taking birth control pills), respectively. Table 1 presents the distribution of the participants by grade level. In the users group, the grade levels ranged from 8th grade to 12th grade, with the mean being the 11th grade. In the non-users group, the grade level range was from 7th to 12th grade, with the mean being 9th grade.

Table 1

Distribution of the Subjects by Grade

Grade	Frequency	Percentage
Users:		
8	1	8.0%
9	1	8.0%
10	1	8.0%
11	3	20.1%
12	6	40.0%
Drop-outs	<u>2</u>	<u>16.0%</u>
Total	14	100.0%
Non-users:		
7	6	21.4%
8	4	14.4%
9	6	21.4%
10	3	10.7%
11	6	21.4%
12	<u>3</u>	<u>10.7%</u>
Total	28	100.0%

Table 2 presents the distribution of participants by age. The youngest participant in the users group was 14 years and the oldest 18 years. The range of years for this

group was 4; the mean age was 17.5 years. In the non-users group, the youngest participant was 13 years and the oldest was 18 years. The range equated to 5 years; the mean age was 15.42.

Table 2

Distribution of the Subjects by Age

Age	Frequency	Percentage
Users:		
13	0	0.0%
14	1	7.1%
15	0	0.0%
16	1	7.1%
17	1	7.1%
18	<u>11</u>	<u>78.7%</u>
Total	14	100.0%
Non-users		
13	5	17.9%
14	4	14.3%
15	5	17.9%
16	6	21.3%
17	4	14.3%
18	<u>4</u>	<u>14.3%</u>
Total	28	100.0%

Table 3 presents the distribution of participants by ethnic group. The majority of participants in the users group were Black; the majority of the participants in the non-users group was Hispanic.

Table 3

Distribution of the Subjects by Ethnicity

Ethnicity	Frequency	Percentage
Users:		
Hispanic	4	28.6%
Native American	0	0.0%
White	0	0.0%
Black	10	71.4%
Southeast Asian	<u>0</u>	<u>0.0%</u>
Total	14	100.0%
Non-users		
Hispanic	18	64.3%
Native American	1	3.6%
White	0	0.0%
Black	9	32.1%
Southeast Asian	<u>0</u>	<u>0.0%</u>
Total	28	100.0%

Table 4 presents the distribution of participants' marital status. Both groups had two adolescents who were married.

Table 4

Distribution of Subjects' Marital Status

Married	Frequency	Percentage
Users:		
Yes	2	14.3%
No	<u>12</u>	<u>85.7%</u>
Total	14	100.0%
Non-users:		
Yes	2	7.1%
No	<u>26</u>	<u>92.9%</u>
Total	28	100.0%

Table 5 presents the distribution of participants' reported sexual activity. The users group reported the highest percentage of sexual activity (85.9%); the non-users reported the lowest sexual activity (32.1%).

Table 5

Distribution of Subjects by Reported Sexual Activity

<u>Sexually Active</u>	<u>Frequency</u>	<u>Percentage</u>
Users:		
Yes	12	85.7%
No	<u>2</u>	<u>14.3%</u>
Total	14	100.0%
Non-users		
Yes	9	32.1%
No	<u>19</u>	<u>67.9%</u>
Total	28	100.0

Table 6 presents the distribution of the non-user participants' contraception methods.

Table 6

Distribution of the Non-user Subjects' Contraceptive
Methods

Contraceptive Method	Frequency	Percentage
Abstinence	12	60.0%
Condoms	5	25.0%
Withdrawal	1	5.0%
Spermicides	0	0.0%
Other	<u>2</u>	<u>10.0%</u>
Total	20	100.0%

Note. Eight of the participants in the non-users group did not respond to this part of the questionnaire.

Table 7 presents the distribution of the participants who were pregnant when they filled out the questionnaire. The users group reported three pregnant adolescents; the non-users group reported five pregnant adolescents.

Table 7

Distribution of the Subjects Who Were Pregnant

Pregnant	Frequency	Percentage
Users:		
Yes	3	21.4%
No	<u>11</u>	<u>78.6%</u>
Total	14	100.0%
Non-users:		
Yes	5	18.5%
No	<u>22</u>	<u>81.5%</u>
Total	27	100.0%

Note. One of the subjects in the non-users group did not respond to the questionnaire.

Table 8 presents the distribution of the participants with children. Both groups reported a maximum of one child per adolescent parent.

Table 8

Distribution of the Subjects With Children

Children	Frequency	Percentage
Users		
Yes	6	42.9%
No	<u>8</u>	<u>57.1%</u>
Total	14	100.0%
Non-users:		
Yes	1	3.7%
No	<u>27</u>	<u>96.3%</u>
Total	28	100.0%

Analysis of the Data

This section presents the results of data analysis. Table 9 presents the t-test results of the total correct responses between the users group and non-users group. The users group had a maximum score of 13 correct responses and a minimum score of 6 correct responses. The standard deviation was 2.2, the mean was 11. The non-users group had a maximum score of 14 and a minimum score of 7. The standard deviation was 1.6, the mean was 10. The t-test was tested at the .05 level of significance as it failed to reject the hypotheses.

Table 9

T-test Results of the Total Correct Response Between the
Users Group and the Non-users Group

Group	<u>M</u>	<u>t</u>	<u>p</u>
Users	11.07		
		1.00	.32
Non-users	10.46		

CHAPTER V

SUMMARY, DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

The concluding information in this chapter will be presented under the following headings: (a) Summary of the Study, (b) Summary of the Findings, (c) Discussion, (d) Conclusions, and (e) Recommendations.

Summary of the Study

This study was undertaken to assess knowledge of the correct use of oral contraceptives of female adolescents who were registered with the Community Oriented Primary Care (COPC) clinic in West Dallas and whether there was a difference in this knowledge between those who were taking birth control pills and those who were not.

The questionnaire was administered in January 1993 to February 1993 to a sample of 42 female adolescents who attended the West Dallas COPC clinic. The instrument used to collect data was the Knowledge of Oral Contraceptives/Birth Control Pills, which was developed by the researcher. Descriptive techniques and the t-test were used to analyze the data.

Summary of the Findings

Part 1 of the questionnaire provided demographic data of the subjects who participated in the study which included grade, age, race/ethnicities, sexual activity with birth control methods used, and number of children. Part 2 of the questionnaire consisted of 14 statements concerning knowledge about oral contraceptives/birth control pills to which the subjects responded by indicating whether each one was true or false. The t-test was used to determine if a statistical difference existed between the users group and the non-users group at the .05 level of significance.

Discussion

Many studies have been done which assessed female adolescents' knowledge concerning contraceptive usage. However, the researcher was unable to find any comparative studies between those female adolescents who took birth control pills and those who did not. This study should bring to the attention of those health care providers who are providing family planning services to the female adolescents that quality information is necessary if the adolescent is expected to comply with the medical regime in order to prevent a pregnancy.

Listed below are the specifics regarding the responses to the questionnaire by the participants. These results

may be interesting as well as beneficial to those who are employed as health care providers of family planning to female adolescents (U = users; N = non-users).

1. Next to total abstinence (not having sex), birth control pills are very effective at preventing pregnancy. Participants responding correctly: U = 11 (78.6%); N = 18 (64.3%).

2. Birth control pills can prevent sexually transmitted diseases (clap, drip, syphilis). Participants responding correctly: U = 12 (85.7%); N = 24 (85.7%).

3. Birth control pills should be taken every day to be most effective. Participants answering correctly: U = 13 (92.9%); N = 24 (85.7%).

4. Most women will gain 20 pounds when they start taking birth control pills. Participants answering correctly: U = 10 (71.4%); N = 20 (74.1%).

5. The birth control pill may cause you to have a lighter period (menstrual flow). Participants answering correctly: U = 11 (78.6%); N = 15 (53.6%).

6. The birth control pill will protect you from getting AIDS virus. Participants answering correctly: U = 13 (92.9%); N = 27 (96.4%).

7. If you miss taking the pill one day, you should stop taking your pills until your periods starts again.

Participants answering correctly: U = 12 (85.7%); N = 21 (75.0%).

8. You may feel mild nausea (urge to throw up) for 3 to 6 months when you first start taking the birth control pills. Participants answering correctly: U = 10 (71.4%); N = 21 (77.8%).

9. If you get severe leg pains while you are taking birth control pills, you should stop taking the pills and call your health care provider immediately. Participants answering correctly: U = 11 (78.6%); N = 21 (75.0%).

10. If you take the birth control pills longer than 2 years, you will become sterile (never able to get pregnant) U = 10 (71.4%); N = 23 (82.1%).

11. If you miss taking your birth control pills for four days, you should continue taking your pills until you catch up. Participants answering correctly: U = 8 (57.1%); N = 18 (64.3%).

12. Taking birth control pills for many years will cause you to have cancer. Participants answering correctly: U = 10 (76.9%); N = 25 (96.6%).

13. You should use back-up contraception (condoms or another method for the first 7-14 days when you first start taking birth control pills. Participants answering correctly: U = 13 (92.9%); N = 20 (71.4%).

14. If you should start your period before your normal schedule, you should continue taking the pills. Participants answering correctly: U = 11 (78.6%); N = 17 (60.7%).

Conclusions

The study was conducted to determine whether female adolescents in West Dallas had knowledge of the correct use of birth control pills and whether there was a difference in this knowledge between those who were taking birth control pills and those who were not. The results of the data were tested at the .05 level of significance, and the following conclusion was made:

There is no significant difference in knowledge about the correct use of oral contraceptives between adolescent females who are taking the oral birth control pill and those who are not taking the oral birth control pill.

Not Rejected

Reis and Fymchyshn's (1992) study revealed that failures in prevention of pregnancy in female college students were attributed to the incorrect use of the birth control pill. Incorrect use is highly related to incorrect knowledge about the correct use of birth control pills. The users, in the present study, should have been more knowledgeable about birth control pills than the non-users.

Results revealed that the non-users group had a mean score of 10.46 and the users group had a mean score of 11.07. One possible reason for this similarity between the two groups may be attributed to their previous exposure to information concerning correct information and knowledge regarding the use of birth control pills. Because there was no significant difference between the two groups, this could imply that health care providers are not adequately informing those female adolescents who are taking birth control pills.

Recommendations for Further Study

The following recommendations are made for future investigations:

1. The study should be conducted at different school-based clinics for a more varied population.
2. The questionnaire should be administered to a larger population.
3. Part 1 of the questionnaire should ask the question: Have you ever taken birth control pills?

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APPENDIX A
Letters of Permission

Dorruth I. Boyd
5135 Menefee
Dallas, Texas 75227

September 5, 1992

Jim Sealy
Community Oriented Primary Care
6263 Harry Hines Blvd., Suite 402
Dallas, Texas 75235

Dear Mr. Sealy:

I am a graduate student at Texas Woman's University pursuing a master's degree in Health Studies under the direction of Dr. Leah Kaplan. I am writing this letter to request permission to test adolescents registered with COPC at the West Dallas clinic in a research study for my thesis.

My research will be a descriptive study using female adolescents registered with COPC clinic in West Dallas. The adolescents will be asked to complete a 14-item questionnaire that will assess their knowledge of oral contraceptives. Voluntary participation will be requested of the subjects, and anonymity will be maintained.

I would like to distribute the questionnaire to the adolescent females registered at the clinic during the month of January 1993. Each of the participants will receive written instructions of the purpose and correct procedure for answering the questionnaire. They will be reassured that anonymity will be maintained. Attached is an example of the parental consent form and questionnaire to be used.

I appreciate your consideration in this matter. I look forward to hearing from you soon.

Sincerely,

Dorruth I. Boyd, RN
Graduate Student

6265 Harry Hines Boulevard, Suite 401, Dallas, Texas 75235, Phone 214 630 1781, Fax 214 630 8308



COMMUNITY ORIENTED PRIMARY CARE
A PARKLAND PROGRAM

September 11, 1992

Dorruith I. Boyd
5135 Menefee
Dallas, TX 75227

Dear Ms. Boyd:

You have our approval to conduct a research study on the "Female Adolescents Knowledge of Birth Control Pills." We have reviewed the attached questionnaire and consent form and it meets with our approval as a tool for conducting the voluntary survey. All consent forms must be signed by a parent or a guardian.

Please do not hesitate to call us at 630-8611 if we can be of further assistance.

Sincerely,

James Sealey
Director Clinic Operations
Community Oriented Primary Care

APPENDIX B
Parental Consent Form

INFORMATION CONCERNING ORAL CONTRACEPTIVES
(BIRTH CONTROL PILLS)

I N F O R M E D C O N S E N T

I, _____, the parent or guardian of _____, give permission for her to participate in a research study at the Community Oriented Primary Care clinic in West Dallas concerning knowledge of oral contraceptives.

I understand that this study will test my daughter's knowledge about birth control pills and identify if she has the correct information about birth control pills.

I understand that the information obtained from this study will be used to determine if more education is needed to inform teenagers about oral contraceptives.

I understand that participation in this research is completely voluntary and my daughter has the right to refuse to participate if she so chooses.

I understand that my daughter will not write her name anywhere on the questionnaire, and that the results will be anonymous and confidential.

I understand that no medical service or compensation is provided to the subjects by the university as a result of injury from participation in research.

If you have any concerns about the way this research has been conducted, contact the Texas Woman's University Office of Research and Grants Administration.

Signed _____ Date _____
Parent or Guardian

I understand that I have the right to refuse to participate in this research study or to discontinue answering the questionnaire at any time.

Signed _____ Date _____

Researcher's Name: Dorruth Boyd Phone No. 214/275-0839

APPENDIX C
Written Instructions

INSTRUCTIONS FOR ANSWERING THE QUESTIONNAIRE

This is a two-part questionnaire that will assess your knowledge about oral contraception (birth control pills). The first part consists of brief information about you, such as your age, and what grade you are in. The second part consists of questions that you can only answer by circling TRUE or FALSE. When you finish the questionnaire, please give it to the Nurse Aide at the front desk.

If you would like to be a participant in this study, please continue reading the instructions. IF YOU DO NOT WISH TO PARTICIPATE IN THIS RESEARCH STUDY, PLEASE DO NOT WRITE ANYTHING NOR PUT ANY MARKS ON THE QUESTIONNAIRE, AND RETURN THE QUESTIONNAIRE TO THE NURSE OR CLERK AT THE FRONT DESK.

PLEASE! DO NOT SIGN YOUR NAME TO THIS FORM. All of the answers provided by participants in the study will be collected and looked at together. Your privacy will be protected as no one will be able to identify you from your answers. Therefore, you can answer the questionnaire honestly and not feel threatened.

APPENDIX D
Research Questionnaire

KNOWLEDGE OF ORAL CONTRACEPTIVES/BIRTH CONTROL PILLS

PART I: Circle "YES" or "NO," and fill in the blanks as needed.

- YES NO 1. Is this your first visit to the clinic?
 2. What grade are you in? _____
 3. What is your birthdate? _____
 4. What is your race/ethnic background?
 (please circle)
 (a) Hispanic (d) African American
 (b) Native American (e) Southeast Asian
 (c) White (f) Other _____
- YES NO 5. Are you married?
- YES NO 6. Are you sexually active? (having had sex previously, occasionally, or often)
- YES NO 7. Are you taking birth control pills?
 if YES, how long? ___ Months ___ Years
 If NO, please circle the method(s) you use to prevent pregnancy.
 (a) Abstinence (not having sex)
 (b) Condoms
 (c) Withdrawal (pulling penis out)
 (d) Spermicides
 (e) Other _____
- YES NO 8. Are you pregnant? If so, how many months _____
- YES NO 9. Do you have any children?
 If YES, how many? _____

PART II: Circle "T" if you think that a statement is true, and "F" if you think a statement is wrong.

- TRUE FALSE
 T F 1. Next to total abstinence (not having sex), birth control pills are very effective at preventing pregnancy.

- T F 2. Birth control pills can prevent sexually transmitted diseases (clap, drip, etc.).
- T F 3. Birth control pills should be taken everyday to be the most effective.
- T F 4. Most women will gain twenty pounds when they start taking birth control pills.
- T F 5. The birth control pill may cause you to have a lighter period (menstrual flow).
- T F 6. The birth control pill will protect you from getting the AIDS virus (HIV).
- T F 7. If you miss taking the pill one day, you should stop taking your pills until your period starts again.
- T F 8. You may feel mild nausea (urge to throw-up) for 3 to 6 months when you first start taking the birth control pills.
- T F 9. If you get severe leg pains while you are taking birth control pills, you should stop taking the pills and call your health care provider immediately.
- T F 10. If you take the birth control pills longer than two years, you will become sterile (never able to get pregnant).
- T F 11. If you miss taking your birth control pills for four days, you should continue taking your pills until you catch up.
- T F 12. Taking birth control pills for many years will cause you to have cancer.
- T F 13. You should use back-up contraception (condoms or another method) for the first 7-14 days when you first start taking birth control pills.
- T F 14. If you should start your period before your normal schedule, you should continue taking the pills.

APPENDIX E

Letters to Experts and Evaluation Form

Dorruth I. Boyd
5135 Menefee
Dallas, Texas 75227

September 5, 1992

Carolyn Sutton, Director
Women's Health Care Nurse
Practitioner Program
2330 Butler Suite 103
Dallas, Texas 75235

Dear Ms. Sutton/Panel Expert(s):

I am a registered nurse and a graduate student at Texas Woman's University. In partial fulfillment for a master's degree in Health Studies, I am conducting a research study to assess female adolescents' knowledge or oral contraceptives.

As per our conversation via telephone on August 31, 1992, I am requesting your opinion of the 14-item questionnaire (attached) to determine whether it is valid for the research study which I hope to conduct in January 1993. As your expertise includes family planning services, I would appreciate your examination of the questionnaire for relevance and clarity. Please write any changes you may suggest directly on the questionnaire, and complete the evaluation form with your comments.

Also, I am sending five additional questionnaires for the members of your staff to evaluate. Please ask them to forward their suggestions/opinions to me as soon as possible. I have included my address with each packet so this can be done at their convenience.

Thank you very much for your time and expert critique. If you have any questions, you may contact me at 214/275-0839. Please return the questionnaire with your recommendations and opinions in the enclosed, stamped envelope. Results of the study will be made available to you upon request.

Sincerely,

Dorruth I. Boyd, RN
Graduate Student

Dorruth I. Boyd
5135 Menefee
Dallas, Texas 75227

September 5, 1992

Dolores Clark, Instructor
University of Texas at Arlington
P. O. Box 19407
Dallas, Texas 76109

Dear Dr. Clark:

I am a registered nurse and a graduate student at Texas Woman's University. In partial fulfillment for a master's degree in Health Studies, I am conducting a research study to assess female adolescents' knowledge of oral contraceptives.

As per our conversation via telephone on August 31, 1992, I am requesting your opinion of the 14-item questionnaire (attached) to determine whether it is valid for the research study which I hope to conduct in January 1993. As your expertise includes family planning services, I would appreciate your examination of the questionnaire for relevance and clarity. Please write any changes you may suggest directly on the questionnaire, and complete the evaluation form with your comments.

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Graduate Student

Dorruth I. Boyd
5135 Menefee
Dallas, Texas 75227

September 5, 1992

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Sincerely,

Dorruth I. Boyd, RN
Graduate Student

Expert's Evaluation Form for Questionnaire

1. Are the questions appropriate for the population (females 13-18 years)?

2. Does the questionnaire ask appropriate questions concerning knowledge about using birth control pills?

3. Are there any questions you think should be reworded?

4. Are there any questions you think should be added concerning correct knowledge about using birth control pills?

5. Do you think that this is a valid questionnaire to be used for the research study to test female adolescents' knowledge about using birth control pills?