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The Effects Of A Teaching Session On Public Health Nurses' Knowledge And Attitudes Toward Adolescent Sexuality

Peggy Robinson

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The Effects of a Teaching Session on Public Health Nurses' Knowledge and Attitudes Toward Adolescent Sexuality

By

Peggy Robinson

A Thesis
Submitted to the Faculty of Mississippi University for Women in Partial Fulfillment of the Requirements for the Degree of Masters of Science in Nursing in the Department of Nursing Mississippi University for Women

July, 1984
The Effects of a Teaching Session on Public Health Nurses' Knowledge and Attitudes Toward Adolescent Sexuality

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Abstract

The purpose of this quasi-experimental study was to determine the differences in sexual knowledge and attitudes between public health nurses who participated in a short-term sexuality course and public health nurses who did not participate in a human sexuality course. The Sex Knowledge and Attitude Test (SKAT, Parts I and II) was used as a data collecting tool. The sample was taken from districts of the Mississippi State Board of Health. The experimental group took the SKAT following a four-hour human sexuality course. The control group took the SKAT without any educational exposure.

The hypothesis stated that there would be no significant difference in sexual knowledge and attitudes of public health nurses following a course in human sexuality. There were 80 subjects in the sample, 39 subjects in the experimental group and 41 subjects in the control group. The test results were analyzed with the one-way ANOVA. The results demonstrated a significant difference on the sexual
knowledge test and one subscale of the attitude scale. Therefore, the researcher rejected the null hypothesis.
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CHAPTER I

The Research Problem

The need for the continued study of human sexuality was established in 1975 by the World Health Organization at a meeting in Geneva (Zalar, 1982). The report of that meeting expressed the importance of education and counseling in human sexuality as a component of health care delivery. The following statement from the World Health Organization was made:

A growing body of knowledge indicates that problems in human sexuality are more pervasive and more important to the well-being and health of individuals in many cultures than has previously been recognized, and that there are important relationships between sexual ignorance and misconceptions and diverse problems of health and quality of life. (Zalar, 1982, p. 353)

The focus of this research is on human sexuality and the need for a change of attitudes and an increase
of knowledge in this area of health care. Particular emphasis will be placed on the knowledge and attitudes of public health nurses toward human sexuality.

Human sexuality is described by Schiller (1973) as a fundamental dimension of human awareness and development that is involved with the ever present desire for personal satisfaction and happiness. Another noted sexuality expert, Fort (1975), also describes sex as a major aspect of interpersonal relationships.

Regardless of the importance of sexuality in achieving personal satisfaction and happiness, there seems to be strong consensus that human sexuality is grossly misunderstood and that it creates problems for many individuals. According to Kelly (1976), human sexuality is one of the most misunderstood aspects of one's being. He believes that because sex is such an intimate part of life and such a powerful motive, it is tragic that sex has been neglected for so long. Another author suggests that although the belief is widely held that a pervasive sexual revolution is underway, the truth is far from that. She believes that most Americans from the teens to the 80s are troubled by some degree of fear, guilt, and ignorance about sex (Fort, 1975).
Although the literature clearly documents the existence of sexuality problems across the age continuum, this researcher is particularly interested in adolescent sexuality. Adolescents, perhaps, experience the most significant sexual problems of any age group, and their entire life-span can be and is affected by the experiences they have with sexuality as teenagers. Emphasis is being placed on adolescent sexuality because the researcher, as a former family planning nurse practitioner, worked for seven years with adolescents and became keenly aware of some of the problems they encounter regarding their sexuality. The need for this special focus on adolescent sexuality is well documented by Libby and Nass (1981), two sexuality experts. They state:

Adolescent, and even pre-adolescent sexual activity is increasing, a fact that has important consequences for our young people's physical and mental health, the family as the fundamental building blocks of society, on juvenile and other laws, and on medical practice. (p. 226)

Documentation is abundant regarding sexuality problems encountered by adolescents. Whose job is it, however, to educate, counsel, and inform the teen
population in order to decrease these traumatic problems?

According to Woods (1975), it is the health professional's responsibility to assist in promoting sexual health in American society. She notes that expectations of the health consumer reflect an ever-growing curiosity about sexual behavior in health and illness. Watts (1979) also believes sexual health is, in part, the responsibility of health professions, and nurses in particular. She believes that all nurses who take health histories should automatically screen for problems related to sexual health. She points out that this is especially important for those nurses who practice in expanded roles.

Maddock (1975) also reports that health care professionals traditionally have been poorly equipped to provide information on human sexuality. He concludes that they are no more likely than the rest of the population to be sophisticated in their sexual knowledge, and he blames this on the lack of information on human sexual behavior in medical training. This report was supported by the World Health Organization in 1973 when it confirmed that
there was worldwide inadequacy in teaching about sexuality in most medical and nursing curricula.

Nurses are showing an increasing interest in workshops, lectures, and journal articles dealing with the delivery of sexual health care even though they do not receive specific preparation in sexuality in nursing schools (Mims, 1977). According to Payne (1976), many professional nurses are not prepared to deliver sexual health care.

Knowledge of sexuality cannot be increased, however, unless attitudes become more positive. Fonesca (1973) states that sexuality is the least comfortable aspect of man that nurses deal with and the least understood. According to Elder (1970), to deal with the sexual components of illness and health, nurses should recognize their own sexuality as a valuable and integral part of themselves and integrate it into their goals as a nurse. If nurses understand their attitudes concerning human sexuality, biases would be reduced and communication enhanced (Dutton, 1971). Calderone (1970) supports the belief that attitudes are as important, if not more important, than knowledge. He writes that "Incorrect information is easily corrected, but warped attitudes are not" (p. 100). Perhaps, Woods (1975) emphasizes most strongly
the importance of attitudes toward sexuality. According to her, above all it is essential that the sex educator examine his or her own attitudes about sex and comfort with sexuality and the approach with which he or she can be most comfortable.

Nurses should be aware of their attitudes on pre- and extra-marital coitus, abortion, adoption, premarital pregnancy, homosexuality, contraception, masturbation, divorce, orgasm, sexual inadequacies, venereal disease, and other areas related to sexuality. For example, by understanding attitudes toward sex play of children, bashfulness of puberty, inhibition or freedoms of teenagers and breastfeeding, the nurse's helpfulness to individuals as well as society should increase (Payne, 1975).

In conclusion, sexuality is a complex lifelong phenomena. There is much fear, guilt, and ignorance regarding human sexuality, and particularly adolescent sexuality. Literature supports this researcher's belief that health care professionals must take measures to control and eradicate these problems. Literature further reveals, however, that health care providers are not knowledgeable regarding sexuality and that they need to examine and understand their own attitudes before they can become more
knowledgeable and therapeutic in dealing with human sexuality.

Health care professionals must be educated regarding their attitudes and lack of knowledge. Due to the direct impact that public health nurses have on the general public, they can help to successfully educate and counsel the adolescent regarding sexuality as well as to share their knowledge with other health care professionals. Family Nurse Clinicians (FNCs) should use their knowledge of adolescent sexuality to help educate other health care providers and public health nurses in particular because they are in the heart of the community health field.

In order for the FNC to educate public health nurses, a complete assessment of knowledge and attitudes should occur. The purpose of this research was to compare sexuality knowledge and attitudes of public health nurses who participated in a four-hour presentation on the subject of human sexuality with public health nurses who did not. The question this study sought to answer was: Will a short course on adolescent sexuality affect the knowledge of and attitudes toward sexuality in public health nurses?
CHAPTER II

Theoretical Basis of the Study

Orem's Self-Care Model was the theoretical framework for this study of the effect of a human sexuality course on the knowledge and attitudes of public health nurses. Family Nurse Clinicians (FNCs) should use their knowledge of sexuality to educate and counsel public health nurses who work with adolescents. The basis for these activities by health care providers can be found in Orem's (1980) self-care theory.

Since the beginning of modern nursing, some nurses have been at the forefront of preventive health care. The nurses' understanding of the dimensions of health care problems often exceed those of colleagues from other disciplines. For these reasons, the nurse is in an advantageous position to move toward constructive change in the field of health services (Orem, 1980). Adolescent sex education is a definite area of preventive health care.

Orem's Self-Care Model relates to the present emphasis on the individual to be responsible for
preventive health care measures as well as to acquire education in deficit knowledge areas of his health care needs. Research reveals that there is a definite deficit of sexuality knowledge among health care providers—even those who daily come in direct contact with adolescents.

Developmental self-care is the events that occur during various stages of the life cycle and events that can adversely affect development (Foster & Janssens, 1980). The adolescent years of life are filled with some of the most complex developmental stages, sexuality being one of the most prominent and most difficult to achieve. Knowledgeable health care providers, and specifically public health nurses, can and should be instrumental in assisting adolescents through this stage of their life cycle. With this assistance, perhaps devastating adverse effects such as venereal disease, unwanted pregnancy, decreased self-esteem, and confusion about sexual identity can be decreased.

The FNC should help to prepare and educate public health nurses to assist adolescents with their self-care actions. As identified by Orem (1980), these are (a) maintenance of normal growth, development, and motivation, (b) prevention or cure
of disease processes and injuries, and (c) prevention of or compensation for disability. The public health nurse is often the one that comes in contact with and provides care for adolescents in the community setting. With increased knowledge about adolescent sexuality, public health nurses can be primary persons in assisting them to achieve these self-care actions.

Orem (1980) identifies three basic types of nursing systems to meet client needs. The three nursing systems are wholly compensatory, partly compensatory, and supportive-educative. The supportive-educative system was chosen for this research because it is one in which the client is able to perform the required self-care measures, but needs some assistance. The methods of assisting in this system include support, guidance, and teaching (Thibodeau, 1980). The responsibility of the FNC should be to support, guide, and teach public health nurses regarding adolescent sexuality in order to better prepare and educate them in this particular nursing area.

In Orem's nursing process, three steps of the nursing process are described. Step I is the collection of data and the determination of why a client needs nursing care (Foster & Janssens, 1980).
In this research study, Step I was implemented in assessing the sexuality knowledge and attitudes of public health nurses after a course in human sexuality.
CHAPTER III

Hypothesis

Theoretical Hypothesis

There will be no significant difference in the sexual knowledge and attitudes of public health nurses following a course in human sexuality.

Theoretical Definitions

1. No significant difference: the scores obtained from the Sex Knowledge and Attitude Test (SKAT) at the .05 level using the ANOVA test.

2. Sexual knowledge and attitudes: facts and information about and values and beliefs toward sex as determined by the Sex Knowledge and Attitude Test (SKAT).

3. Public health nurses: professional registered nurses of all ages, male or female, who work in a county health department in any health area in the North Mississippi geographical area.

4. Course in human sexuality: a four-hour workshop, utilizing films, charts, lectures, and group participation.
Operational Hypothesis

When registered nurses of any age or gender who work in a county health department in North Mississippi participate in a four-hour lecture and group discussion class and complete the Sex Knowledge and Attitude test and the scores of this test are compared to public health nurses who work in the same geographical area but who do not participate in the class, there will be no significant difference at the .05 level of significance using the ANOVA test.
CHAPTER IV

Review of the Literature

The review of literature will begin with general concerns regarding human sexuality, and adolescent sexuality in particular. Then, studies will be reviewed regarding adolescent sexuality problems and nurses' knowledge and attitudes toward sexuality.

Concerns Regarding Adolescent Sexuality

Human sexuality is an area of considerable concern in today's contemporary culture. The increased openness about sexual behavior is resulting in the consumer seeking counsel and answers to their sexual problems from helping professionals. The professionals need to possess self-knowledge before they can help others. Yet, health professionals have tended to exhibit a lack of adequate knowledge about sex education and counseling (Mandetta & Woods, 1974).

One authority in adolescent medicine, Shearin (1980), suggests that the issues concerning adolescent sexuality have become the challenge of the 80s for health care providers. He emphasizes that the task
must not be left entirely to the parents and the school system.

Lipkin (1978), another researcher of adolescent development, suggests that adolescents are faced with sudden awareness of sexual drives that may be frightening. If they are brought up to believe that sex is "dirty" or that masturbation is harmful, they may not know how to cope with their sudden urges, and be drawn into situations that they find difficult to handle.

This is where the knowledge and attitude of the nurse can make a difference. The U.S. Department of Health, Education, and Welfare (1982) documents that education is an integral component of adolescent health care services. Health teaching and counseling influence the adolescent's behavior through acquisition of new information and skills, and assist the adolescent in gaining a sense of control over events in his own life.

This belief is further supported by Clarke (1983). Clarke reports that the health professional who has knowledge about the cognitive, emotional, and social domain of the adolescent will be better able to individualize counseling regarding adolescent sexual concerns.
Teen pregnancy.

According to Wilson and Kneisl (1979), some teenage girls are quite pleased with the state of motherhood and suffer no emotional consequences from the decision to become a mother. However, they conclude that a conscious, deliberate decision for pregnancy at this age is manipulative. They believe that the goal of the girl may be to remove herself from a difficult family situation, to express hostility toward her parents, or to act out a life script in which the daughter is seen as bad.

Regardless of the reasons for teen pregnancies, the incidence is rising. In 1974 there were 1 million adolescent pregnancies. By 1978 that number increased by 100,000. More than 1 in 10 teens gets pregnant each year, and the proportion is rising. There are 1.3 million children now living with teenage mothers, about half of whom are married (Alan Guttmacher Institute, 1981).

According to the Northeast Mississippi Daily Journal (October, 1983), childbirth and obstetric-related illnesses were the most common reasons for teenaged girls to be hospitalized. A study done by the National Center for Health Statistics revealed
that one-third of the 1.8 million hospital stays by adolescent girls in 1980 were for childbirth. Statistics from this study showed that teen girls' hospitalization rate was 86% higher than that of their male counterparts. Deliveries, the leading diagnostic condition of teen girls, occurred in 582,000 cases (or about 32%). Abortion accounted for 91,000 cases (or 5%), and pregnancy-related complications accounted for 83,000 cases (or 5%). More than half of the deliveries were to unmarried teenagers.

Infant mortality.

The consequences of teenage childbearing are almost all adverse. Data from New York State for 1974 through 1978 indicate that babies born to teenage mothers are far more likely to die in the first year of life than those born to mothers over age 20. Their risk of death is nearly two times greater than that of babies born to mothers in their 20s. Furthermore, risk of death is even greater than that of infants born to mothers aged 40 or older (Alan Guttmacher Institute, 1981).

One reason for increased infant mortality in mothers below 20 years old is that they often have premature or low birth weight babies. Low birth weight is a major cause of infant mortality, as well
as a host of serious childhood illnesses, birth injuries, and neurological defects. Among all teenagers, the rise of low birth weight babies is 39% higher than in women aged 20 to 24 (Alan Guttmacher Institute, 1981).

Another reason for infant mortality, according to the U.S. Department of Health, Education, and Welfare (1982), is that young teens are unlikely to accept and act upon the physician's advice for the care of her body and nutritional requirements. The reason for this behavior is because adolescents react to pregnancy with disbelief and disassociation (U.S. Department of Health, Education, and Welfare, 1982).

**Maternal mortality.**

Not only is the baby endangered because of teen pregnancy, but so is the mother. Maternal mortality appears to be higher among teenage mothers. In 1977-1978 the maternal death rate of mothers under age 15 was 18 per 100,000 live births--2 1/2 times the rate among mothers aged 20 to 24 (Alan Guttmacher Institute, 1981).

Data from New York State for 1974-1978 indicated that teenage mothers were 15% more likely to suffer from toxemia, 92% more likely to have anemia, and 23% more likely to suffer from complications attendant
upon a premature birth than were mothers who gave birth at ages 20 to 24 (Alan Guttmacher Institute, 1981).

Socioeconomic problems.

Teenage parents are more likely than those who delay childbearing to have low status, low paying jobs, or to be unemployed. According to the Alan Guttmacher Institute (1981), in 1975 the mean family income of women who gave birth at or before age 16 was $7,550, about half of the $13,900 earned by families where the mother delayed birth until her middle to late 20s. The younger the mother at childbirth, the lower her annual family income (Suchindram, 1978).

According to a study done by Moore, Waite, Caldwell, and Hofferth (1978), 54% of 24-year-old women who had given birth at age 17 or younger were classified as being of low socioeconomic status, compared to 33% of those who had given birth between ages 21 and 23, and 15% of those still childless. Moore et al. (1978) concluded that poor education is one of the major factors keeping teenage mothers' incomes low. They further concluded that another factor of low income is the relatively high probability that teenage mothers will bring up their child in a home where there is no breadwinning father.
Because of few skills, little education, low salaries, and no husband in the home, many teenage mothers must become dependent on public welfare for support. According to Moore (1978), in 1975 about half of the $9.4 billion invested in the federal Aid to Families with Dependent Children (AFDC) program went to families in which the woman had given birth as a teenager. Six out of 10 women in families receiving AFDC payments had given birth as teenagers, compared to one-third of women in families not receiving such payments. About one-fourth of teenage mothers are currently receiving AFDC payments (Moore, 1978). This contributes not only to individual handicaps, but it also becomes a burden for the economy of our society as a whole.

**Marriage disruption.**

Another problem evolving around teenage sexuality is divorce. Teenage parents are far more likely to separate or divorce than couples who postpone childbearing until their 20s. According to McCarthy and Menken (1979), 44% of women who give birth at ages 14 to 17 are separated or divorced within 15 years, three times the proportion among women who did not begin childbearing until age 20 or later. McCarthy and Menken (1979) report that marriage disruption is
two times more likely among those who become parents at ages 18 to 19 than among those who wait until their 20s.

McCarthy and Menken (1979) conclude from those statistics that by the age of 8, 70% of children first born to women at age 17 or younger will have spent part of their childhood in a single-parent household. This compares to 41% of the children first born to women ages 18 to 19, and about 25% of children first born to women in their 20s. This researcher views this as a significant difference that further warrants society's attention toward adolescent sexuality problems.

**Venereal disease.**

The problems arising from unplanned children are not the only tragedies that occur as a result of adolescent sexuality problems. Venereal disease is rampant among adolescents, accounting for 25% of the reported gonorrhea cases every year. In 1976 more than 3 million Americans contracted a serious venereal disease, and the second reported greatest risk was in the 15- to 19-year-old age group (Gordon, Scales, & Everly, 1979).

This researcher believes that teenagers would use protective measures against venereal disease if they
were better informed. The end result would then be a decrease in health problems and in health care costs. It could furthermore prevent or reduce latent health complications of venereal disease.

**Abortion.**

Abortion and its effect on adolescents is an ongoing issue. Freidman and Phillips (1981) believe that little is known about psychological effects of abortion upon the teenage girl as well as her partner. They report, however, that there is an increasing interest in the psychological impact of abortions on women and an awareness that potential parents may experience a profound grief reaction under such circumstances. Elective abortion may be associated with feelings of guilt and anger that the abortion was necessary. According to Freidman and Phillips (1981), varying degrees of depression are common and may even be almost universal in girls having undergone an elective abortion. Ethical and moral blame may be placed upon the girl by her partner and family—and by herself.

Illegal abortion deaths were looked at in the 1970s by Binkin and her colleagues from the U.S. Center for Disease Control. They attempted to determine why illegal abortions are still occurring.
There were 17 illegal abortion deaths reported between 1975 and 1979, reflecting an estimated annual incidence of 5,000 to 23,000 illegal procedures (Grimes, Cates, & Selik, 1981). Thus, the threat of illegal abortion deaths cannot be overlooked as another adolescent sexuality problem.

**Adolescent fathers.**

Adolescent pregnancy affects more people than just the young mother; there also may be significant psychosocial consequences for the adolescent father. According to Elster and Panzarine (1981), adverse effects may be seen on the male adolescent's vocational-educational achievement, on early marriage and divorce rates, and also on his coping behavior. Potentially, there also may be adverse effects on the infant as a result of inadequate parenting (Elster & Panzarine, 1981).

**Characteristics of Adolescents**

Finally, the question arises—"Why do adolescents not protect themselves from these problems"? This researcher believes there are many reasons, but none of which can be absolutely pinpointed. This researcher believes that the adolescent developmental phase is so complex, so individualized, and so misunderstood that it will take many more years of education and research
to develop a better understanding of the adolescent. However, there are some documented characteristics of the adolescent that might account for some of their problems.

According to Lipkin (1978) adolescents are faced with sudden awareness of sexual drives that may be frightening. If they have been brought up to believe that sex is "dirty" or that masturbation is harmful, they may not know how to cope with their sudden urges. Therefore, they can be drawn into situations that they find difficult to handle.

**Egocentrism.**

Another characteristic of adolescence is egocentrism. The adolescent is preoccupied with self and believes that everyone else is as preoccupied with his/her appearance and behavior as he/she is. The constant time spent in front of the mirror examining every pimple, lock of hair, and article of clothing helps the adolescent to project the way he/she will look to others. Because adolescents believe that everyone is interested in them, he/she feels that he/she must be special. It is this belief in his/her own uniqueness, the personal fable, that leads the adolescent to believe that he/she is not subject to the same rules as everyone else. This personal fable
leads the adolescent girl to believe that she is magically protected from getting pregnant even if she engages in sexual intercourse without using contraception and leads the adolescent boy to believe that he does not need to use contraception because he could not get a girl pregnant (Clarke, 1983).

Fear and lack of knowledge.

Gordon et al. (1979) report that many adolescents are reluctant to request contraceptive advice or prescriptions because they fear lectures on morality and refusals of their requests. They also report that a significant number of teens do not use a method for a variety of other reasons, most of which reflect lack of knowledge and some of which reflect nonavailability.

The problems that have been discussed relating to adolescent sexuality are certainly only a few of the problems. One could go on and on discussing the multitude of complications arising from adolescent sexuality. The researcher, however, believes that the problems discussed are sufficient enough to relay the message that serious, ongoing problems do exist. Now, it is important to look at some of the problems parents and professionals have when dealing with adolescents and their sexuality, and what can be done to help them
to facilitate the adolescent through a healthier, happier sexual development.

Finally, Schiller (1973) believes that sexuality is gaining increasing recognition and acceptance as a major component of human personality—and that this recognition makes us increasingly aware of the duty of society to provide good sex education. He believes that there is a great need for special sexuality training in the area of health care providers. Kilpatrick (1975) supports Schiller's belief that human sexuality is an area in which clients have the right to expect—and do expect—the counselor to be informed.

Health Professionals' Knowledge and Attitudes Toward Sexuality

Regardless of the documented need for well-informed health care professionals, research shows that there is a lack of knowledge. de Lemos (1977) reports that the lack of knowledge of helping professionals in dealing with sexuality problems has been recognized widely and cited in the professional literature.

Renshaw (1973) found that in 1970 only 50% of U.S. medical schools included the study of human sexuality in their formal curriculum. de Lemos (1977) reports that nursing educators have also recognized the
need for human sexuality in the professional education of their students.

The need for human sexuality courses for nurses was documented by McCreary-Juhasz (1967) in his study of education majors. He used a 30-item multiple choice questionnaire constructed to evaluate sexual physiology. Graduate nurses were used as the control group. Education majors missed one out of four questions, and the nurses missed one out of six questions. The researcher concluded that both nurses and teachers needed to be taught basic facts about sex.

Another researcher, de Lemos (1977), as cited in Fonesca (1973), reports that sexuality is the least comfortable aspect of man that nurses deal with, and the least understood. Luber (1975) also supports in her study the need for human sexuality courses for nurses. She conducted a study to determine the relationship between knowledge, attitude, and statements of nursing behavior toward sexuality. The tools used were the SKAT and the Professional Sexual Role Inventory. The sample consisted of 107 family planning nurses and 64 senior nursing students. The data supported the hypothesis that the more knowledge a nurse has of sexuality, the more favorable her attitude toward
sexuality and the greater the nurse's ability to deal with clients in sexual situations.

Another study was done by de Lemos (1977). The hypothesis was that attitudes toward human sexuality would increase following a human sexuality training workshop. The experimental subjects, who were practicing professionals, were given the SKAT in the beginning of the workshop and again at the end of the workshop. There were 57 subjects: 16 in group one, 16 in group two, and 25 in group three. The results of the study supported the research hypothesis in the areas of attitudes on heterosexual relations, sexual myths, and autocraticism and sexual knowledge. However, 16 of the subjects decreased on their posttest scores of the attitudinal sections of the SKAT. Those subjects who decreased were from a rural area and were public health nurses, females, married, and over 30 years old. Sexual knowledge increased in all of the experimental subjects.

Werley, Ager, Rosen, and Shea (1973) suggest that nurses are one of the gatekeepers of family planning and that their attitudes and knowledge are likely to influence considerably whether their clients accept or reject their services. In 1971 they conducted a study of six groups of people. These groups were (a) nursing
students, (b) nursing instructors, (c) medical students, (d) doctors, (e) social work students, and (f) social workers. The final sample consisted of 47 nursing schools, 11 medical schools, and 15 social work schools. Questions covered attitudes, beliefs, and knowledge about human sexuality, contraceptives and family planning, perceived appropriateness of professional roles in providing information and services to clients, and curricula related to human sexuality. Several significant findings were related to nurses in this survey. Nursing respondents were least certain of their role in the area of birth control. Instructional deficiency was identified in several areas pertinent to family planning. Giving "general" information was viewed as more appropriate than giving "specific" information to those seeking family planning services. All respondents believed that contraceptive teaching and sexuality was less appropriate for teenagers than for married women or even older unmarried women.

The need for increased knowledge of adolescent sexuality is further supported by the U.S. Department of Health, Education, and Welfare (1979). This department reports that because sex education is a highly controversial and misunderstood area, many
agencies have not known how to approach this topic with their adolescent clients. They have discovered that many health care providers either ignore the area or refer the adolescent to other sources for information. Their findings revealed that few of the staff who work with adolescents have had the opportunity for education and training in presenting sex education programs to adolescents.

Summary

The literature documents that human sexuality is an area of considerable concern in today's contemporary culture. Furthermore, the literature supports the belief that concerns regarding adolescent sexuality must be dealt with, in part, by health care professionals that are educated and informed in this area.

The studies cited on the knowledge and attitude of health care providers, and nurses in particular, clearly define the lack of knowledge and understanding regarding human sexuality. Since nurses are supposed to be prepared to deal with adolescents and their problems, they must become more knowledgeable about sex and aware of their own attitudes regarding sexuality.
The first conclusion made by this researcher is that it is, in part, the responsibility of nurses to help diminish sexuality problems encountered by adolescents. This can only be done through preventive measures—namely, education and counseling.

The second conclusion is that nurses have a lack of knowledge regarding sexuality. However, public health nurses themselves need educating before they can successfully and accurately educate the adolescent population.
CHAPTER V

Research Design and Methodology

Research Approach

The research design employed in this research study was quasi-experimental, using the randomized posttest design. Quasi-experimental research typically involves applied settings where it is not possible to control all the relevant variables but only some of them (Isaac & Michael, 1979). In this type design, groups are preassembled and are as similar as availability permits (Isaac & Michael, 1979).

The purpose of this study was to test the adolescent sexual knowledge of public health nurses. Data regarding knowledge about sexuality and attitudes toward sexuality were collected using the Sex Knowledge and Attitude Test (SKAT), Parts I and II. The data were analyzed using the one-way analysis of variance test to look at the difference in knowledge and attitudes between those public health nurses exposed to treatment and those who were not.
Variables

The controlled variables included occupation and place of employment. The independent variable was the teaching course on human sexuality. The dependent variables of this study were sexuality knowledge and attitudes as reflected by the SKAT. The intervening variables were participants falsifying information on the questionnaires, the participants' experiences which may have made the nurses more knowledgeable or more liberal in their attitudes, the participants' educational levels, and the degree of participant anxiety regarding the test.

Selection of Subjects

The setting for this study was Northeast and North Central Mississippi, which is composed of 21 counties. The two district health departments who participated in this study were designated as Districts I and II.

District I Health Department is composed of 11 counties and has a total population of 273,951 (Mississippi Statistical Abstract, 1980). Although the largest county in District I is highly industrious, the other counties are rural and agriculture is the major source of income. There is a health department and/or local hospital within a
50-mile radius of any of these counties (Mississippi Statistical Abstract, 1980).

District II Health Department is composed of 10 counties and has a total population of 238,307 (Mississippi Statistical Abstract, 1980). Although the largest county in this district is highly industrialized, all of the other counties are more rural and the major source of income is agriculture. Even though District II does not have medical centers as large as District I, there are health centers available within a 50-mile radius (Mississippi Statistical Abstract, 1980).

Registered nurses with varying degrees of education and who were employees of Districts I and II of the State Board of Health made up the population of public health nurses who participated in this study. Although approximately 60 nurses from each district were anticipated in this study, there were only 39 from District II and 41 from District I. District II was chosen to be the experimental group. District I was chosen to be the control group. Selection of the sample was based on the assumption that various levels of education, experience, and socioeconomic background would provide a wide variety of scores for comparison.
Data Gathering Process

Data were collected from April 23, 1984, through May 29, 1984. The researcher contacted the institutions selected and explained the nature and purpose of the study. A letter of explanation and request for permission was then sent to each of the district's supervisors (see Appendices A and B). A written consent was then obtained from the supervisors to allow the institution's registered nurses to participate in the study (see Appendices C and D). April 23, 1984, was the date set for the researcher to test District II's registered nurses at their monthly in-service meeting. May 29, 1984, was the date set for the researcher to present the four-hour human sexuality course to District II registered nurses.

District I's monthly in-service meeting was held on April 23, 1984, at a local junior college in Northeast Mississippi. The researcher verbally explained the study to the participants and handed out written information to each one (see Appendix E). District I's nurses were then requested to sign a subject consent form before taking the SKAT (see Appendix F). It took approximately one hour for the participants to complete the SKAT.
District II's monthly in-service meeting was held on May 29, 1984, at a local university. After explaining the study to the participants, each one was requested to sign a subject consent form (see Appendix G). The participants were given an introduction to the course on human sexuality through a handout listing the objectives for the course and a handout outlining the teaching plan for the day (see Appendices H and I). The course began at 9:00 a.m. and ended at 3:00 p.m. on the same day. The course included films, lectures, and group participation on the subject of human sexuality. An hour was taken off for lunch, and the participants were given from 2:00 p.m. to 3:00 p.m. to take the SKAT.

At both monthly in-service meetings the district nurses were initially informed of confidentiality and autonomy. This was reiterated to them at appropriate intervals during the teaching and testing time.

Both meetings took place in a quiet environment that was well ventilated and well lit with fluorescent lighting. The temperature was cool and comfortable. The researcher used a microphone so that all subjects could hear well. The seats were straight-backed and
comfortable. They were arranged close to the speaker. Chalk boards and audiovisual equipment were available and in good working condition. The environment was conducive to a good learning atmosphere.

**Instrumentation**

The SKAT was developed in 1965 as a teaching and research tool in human sexuality (Lief & Reed, 1972). The SKAT contains two parts. Part I measures attitudes and Part II measures knowledge.

Part I, the attitude section, is composed of four scale areas: (a) heterosexual relations, (b) sexual myths, (c) autoeroticism, and (d) abortion. No questions are disguised and are intended to obtain implicit information. High scores on heterosexual relations, autoeroticism, and abortion items are indicative of a liberal attitude toward these aspects of sexuality. A high score on the sexual myths items shows a rejection of sexual misconception. Conversely low scores represent a conservative attitude.

The SKAT is regarded as having face validity. In the 1971-1972 scores, experimental sample (N = 850), the four subscales were calculated, and internal consistency reliability estimates (coefficient alpha) were made. A cross-validation sample was done to verify these results. The coefficient alpha reliability
estimates for the attitudinal scales were:
(a) heterosexual relations – .86, (b) sexual myths – .68, (c) autoeroticism – .77, and (d) abortion – .84.

Part II of SKAT is the factual knowledge section. It contains 71 true-false items. Of these 71 items, only 50 were selected from proven theory and have an estimated reliability of .87. The raw mean score of this section is 38.81 for the 50 items. These items are viewed as having correct psychometric properties as well as face-content validity; therefore, the test is considered valid (Lief & Reed, 1972).

Demographic data was obtained from SKAT, Part III. Part IV, dealing with questions about sexual experiences, was not used in this study.

Statistical Analysis
Analysis of variance (ANOVA) was employed to describe and analyze data collected for the hypothesis. The one-way ANOVA was used to determine the difference between the sexual knowledge and attitude scores of the control and experimental groups. The one-way ANOVA is used to compare the difference between two groups (Isaac & Michael, 1979).

Assumptions
1. Public health nurses deal daily with patients who have problems and questions about human sexuality.
2. Public health departments have family planning clinics that provide services to adolescents for their sexuality needs.

3. Human sexuality is a major component of adolescents' lives and is an area of concern among health care workers.

4. Public health nurses have knowledge and attitudes about sexuality.

5. The tool (SKAT) used in this study is valid and reliable and is an accurate measure of knowledge and attitudes regarding sexuality.

Limitations

1. Limitation to public health nurses excludes generalization to nurses in hospitals, clinics, and other areas.

2. The rural Mississippi setting of the study limits its generalization to urban areas and to other parts of the country.

3. The study was conducted with all female public health nurses; therefore, limiting the generalization to males.

4. The study prevents generalization on teaching of other subject matter.
CHAPTER VI

Analysis of Data

The purpose of this study was to determine the effect of a four-hour course in human sexuality on public health nurses. There were 41 subjects in the control group and 39 subjects in the experimental group. Both groups took the Sex Knowledge and Attitude Test. The experimental group was tested after participation in the four-hour course.

All subjects were female. The ages in the experimental group ranged from 18 to 36 plus. The ages of the control group ranged from 22 to 36 plus. There were 2 black subjects and 37 white subjects in the experimental group. The control group had 3 black subjects and 38 white subjects. In the experimental group there were 34 subjects from Protestant religious affiliations, 1 from the Jewish religious affiliation, 1 from the Catholic religious affiliation, and 3 from the category of other religious affiliations. In the control group, 35 subjects were Protestants, 2 were Catholic, and 4 were of other religious affiliations.
In the knowledge section of SKAT, the highest score of the experimental group was 66.48. The lowest was 43.66. The highest score in the knowledge section for the control group was 60.77, and the lowest score was 34.16. The highest score of both the experimental groups in the attitude section of the SKAT was 61.86 in the autoeroticism subscale. The lowest score for both groups was 14.17 in the heterosexual relationships subscale. The raw data from the 80 subjects included in the sample are presented in Table 1.

**Hypothesis**

The researcher hypothesized that there would be no significant difference in the sexual knowledge and attitudes of public health nurses following a course in human sexuality. The one-way ANOVA was used to determine if there was a significant difference between the two groups with regard to the mean scores on SKAT (Parts I and II).

In reference to the knowledge section of the SKAT, the F value was 5.496. This indicated a significant difference at the .05 level (see Table 2).
Table 1

Raw Data

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Note.  
E = Experimental  
P = Protestant  
C = Catholic  
J = Jew  
O = Other religious preferences  
K = Knowledge  
A = Autoeroticism  
H = Heterosexual relations  
SM = Sexual myths  
AB = Abortion  

42  
Mississippi University For Women  
COLUMBUS, MS 39701
Table 1

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Part D - Control Group

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<td>38.52</td>
<td>45.76</td>
<td>31.82</td>
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</table>

Note:  
C = Control  
P = Protestant  
C = Catholic  
J = Jew  
O = Other religious preferences  
K = Knowledge  
A = Autoeroticism  
H = Heterosexual relations  
SM = Sexual myths  
AB = Abortion
Table 2

Analysis of Variance of Sexual Knowledge Scores as Measured by SKAT, Part II

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
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<td>Between Groups</td>
<td>1</td>
<td>197.7958</td>
<td>197.7958</td>
<td>5.496*</td>
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<td>Within Groups</td>
<td>78</td>
<td>2807.0526</td>
<td>35.9879</td>
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<td>Total</td>
<td>79</td>
<td>3004.8483</td>
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</table>

*p ≤ .05.

In reference to the attitude section of the SKAT, the following F values were found: (a) heterosexual relations - .041, (b) sexual myth rejection - 1.78, (c) abortion - .026, and (d) autoeroticism - 13.749. The subscale showing a significant difference at the .05 level was autoeroticism (see Table 3).

The findings revealed that there was an increase in knowledge and a more liberal attitude in one of the attitude subscales after a four-hour course in human sexuality. Therefore, the researcher rejected the null hypothesis.
Table 3  
Analysis of Variance on Attitudes as Measured  
by the Four Subscales of SKAT, Part I

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Source</th>
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<th>MS</th>
<th>F</th>
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<td>Heterosexual Relations</td>
<td>Between Groups</td>
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<td>4.4800</td>
<td>4.4800</td>
<td>.041</td>
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<tr>
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<td>Within Groups</td>
<td>78</td>
<td>8571.9832</td>
<td>109.8972</td>
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<td>79</td>
<td>8576.4631</td>
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<tr>
<td>Rejection of Sexual Myths</td>
<td>Between Groups</td>
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<td>.178</td>
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<td></td>
<td>Within Groups</td>
<td>78</td>
<td>8737.0534</td>
<td>112.0135</td>
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<td>Total</td>
<td>79</td>
<td>8757.0181</td>
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<tr>
<td>Abortion</td>
<td>Between Groups</td>
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<td>1.6827</td>
<td>1.6827</td>
<td>.026</td>
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<tr>
<td></td>
<td>Within Groups</td>
<td>78</td>
<td>5002.6719</td>
<td>64.1368</td>
<td></td>
</tr>
<tr>
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<td>Total</td>
<td>79</td>
<td>5004.3546</td>
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<tr>
<td>Autoeroticism</td>
<td>Between Groups</td>
<td>1</td>
<td>1192.4269</td>
<td>1192.4269</td>
<td>13.749*</td>
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<tr>
<td></td>
<td>Within Groups</td>
<td>78</td>
<td>6764.8673</td>
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<td>Total</td>
<td>79</td>
<td>7957.2942</td>
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</table>

*p ≤ .05.
Additional Findings

Two observations were made concerning the testing tool (SKAT) with reference to the demographic information section. The age categories were stopped at anything above age 36, therefore, limiting any detailed analysis of age and its possibility on the outcome of the study.

Another insufficiency in the demographic section was the category of marital status. The questionnaire failed to ask whether the participants were single or married. This could have had an impact on the sexual knowledge and attitudes of the subjects.

Several findings were noted regarding the treatment of the experimental group. One finding was that many of the subjects informed the researcher that they would have liked a longer course on the subject of human sexuality. The researcher believes that there was not enough time to be as thorough in presentation as desired. The researcher also noted that during the treatment, there was not enough time to allow all subjects who wanted to participate by discussion and/or questions to do so. The subjects were noted to be tired by the end of the day, and some seemed to hurry through the questionnaire. The last observation was that the treatment group was too
large which seemed to inhibit the responses of the subjects. Many subjects, therefore, approached the researcher during break periods and initiated questions and comments.
Summary

The purpose of this quasi-experimental study was to determine the differences in sexual knowledge and attitudes between public health nurses who participated in a short-term sexuality course and public health nurses who did not participate in a human sexuality course. The Sex Knowledge and Attitude Test (SKAT, Parts I and II) was used as a data collecting tool. The sample was taken from districts of the Mississippi State Board of Health. The experimental group took the SKAT following a four-hour human sexuality course. The control group took the SKAT without any educational exposure.

The hypothesis stated that there would be no significant difference in sexual knowledge and attitudes of public health nurses following a course in human sexuality. There were 80 subjects in the sample, 39 subjects in the experimental group and 41 subjects in the control group. The test results
were analyzed with the one-way ANOVA. The results demonstrated a significant difference on the sexual knowledge test and one subscale of the attitude scale. Therefore, the researcher rejected the null hypothesis.

Conclusions and Implications

The analysis of variance indicated a significant difference in sex knowledge scores on Part II of the SKAT. It was concluded that a short-term human sexuality course could significantly change sexual knowledge in public health nurses. This conclusion is consistent with Werner's (1980) findings that significant change could occur in knowledge about sex after a short-term course.

The four subscales of the SKAT, Part I, were used to measure attitude. Scores on each of the four subscales were subjected to one-way ANOVA. Statistical analysis revealed a significant difference on the autoeroticism subscale. From the data it was concluded that a short-term course in human sexuality could possibly create change in certain sexual attitudes. This is consistent with findings from Luber (1975), de Lemos (1977), and Werner (1980).

It was concluded that a four-hour course in human sexuality may result in changes in sexual knowledge and in attitudes about autoeroticism. It
was also noted that although there were no significant differences on three of the subscales measuring attitude, the course may result in differences about the degree of acceptance of values of others.

Luber (1975) revealed that increased knowledge and a more liberal attitude significantly affected nurses' abilities to deal with clients with sexual problems. Therefore, the four-hour course employed in this study has the possibility of assisting public health nurses to develop better skills and more knowledge in counseling clients with sexual concerns and problems.

The treatment used in this study included exercises employed to aid subjects to examine their own values. The exploration of personal values as well as peer values can be difficult to identify and prioritize. Therefore, exposure to the values clarification exercises could be an initial step in public health nurses realizing the confusion that persons can have regarding values. This could lead to a more non-judgmental attitude. Public health nurses dealing with sexuality concerns, especially adolescent sexual concerns, need a non-judgmental attitude. Dutton (1971) supports the fact that if nurses understand their attitudes concerning human
sexuality, biases would be reduced and communication enhanced.

According to Elder (1970) and Werner (1980), nurses and counselors should recognize their own sexuality as a valuable and integral part of themselves in order to be able to better deal with the sexual components of illness and health.

Recommendations

Research.
1. Conduction of a similar study using a larger sample size.
2. Conduction of a study using a different test tool or collecting additional demographic information in the areas of age and marital status.
3. Conduction of a similar study allowing more time for the human sexuality course.
4. Conduction of a study performing the treatment with smaller groups of no more than 10 persons per group.
5. Conduction of a longitudinal study in order to determine if the changes in sexual knowledge and attitudes are maintained, increased, or decreased.

Nursing.
1. Develop more human sexuality workshops for all nurses.
2. Encourage Family Nurse Clinicians to become leaders in developing and teaching human sexuality courses for other nurses.

3. Require that all nurses who work in adolescent areas take courses in human sexuality.

4. Require that all schools of nursing include content on human sexuality within the curricula.
APPENDIX A

1225-A Nelle Street
Tupelo, Mississippi 38801
February 9, 1984

Mr. William Denton
District I Administrator
Mississippi State Board of Health
315 Magazine Street
Tupelo, Mississippi 38801

Dear Mr. Denton:

This letter is to request your permission to administer the "Sex Knowledge and Attitude Test" (SKAT) to your public health nurses at the next monthly in-service program. This test will take approximately 45 minutes to write.

I am conducting a research project as part of my graduate study in nursing at Mississippi University for Women. The study concerns the sexual knowledge and attitudes of public health nurses toward adolescent sexuality.

Enclosed are: (1) Information for Participants about the Research Study, (2) a Subject Consent Form, and (3) an Agency Agreement Form. Please complete the Agency Agreement Form and return to me as soon as possible. If you have any questions regarding the research or seminar, please contact me.

Sincerely,

Peggy Robinson, RN, BSN
Graduate Nursing Student
Mississippi University for Women

Enclosures
Mrs. Gresta Stafford  
District II Nursing Supervisor  
District II Health Department  
P. O. Box 1487  
Starkville, Mississippi 39759  

Dear Mrs. Stafford:

I am conducting a research project as part of my graduate study in nursing at Mississippi University for Women. The study concerns the sexual knowledge and attitudes of public health nurses toward adolescent sexuality.

This letter is to request your permission to present a four-hour seminar on the subject of human sexuality to the public health nurses in your district. I plan to administer the "Sex Knowledge and Attitudes Test" (SKAT) to the group. As you requested per our telephone conversation on February 1, I am sending you the teaching objectives, a course outline, and my curriculum vita.

Enclosed also are: (1) Information for Participants about the Research Study, (2) a Subject Consent Form, and (3) an Agency Agreement Form. Please complete the Agency Agreement Form and return to me as soon as possible. If you have any questions regarding the research or the seminar, please contact me.

Sincerely,

Peggy Robinson, RN, BSN  
Graduate Nursing Student  
Mississippi University for Women  

Enclosures
APPENDIX C

Institution's Memorandum of Agreement Concerning Public Health Nurses Knowledge and Attitudes of Adolescent Sexuality

Title of Study: The Effects of a Teaching Session on Public Health Nurses' Knowledge and Attitudes Toward Adolescent Sexuality

Name of Institution

Study discussed with and explained to:

Name of Representative

Involvement in Study:

Cooperation: Consent for researcher to present four-hour seminar on human sexuality to public health nurses.

Participation: 1. Provide facility for seminar.

2. Allow public health nurse employees to attend and participate in seminar.

Date ____________________ Signature of Representative ____________________

_________________________ Researcher ____________________
APPENDIX D

Institution's Memorandum of Agreement
Concerning Public Health Nurses
Knowledge and Attitudes of
Adolescent Sexuality

Title of Study: The Effects of a Teaching Session on Public Health Nurses' Knowledge and Attitudes Toward Adolescent Sexuality

Name of Institution

Study discussed with and explained to:

Name of Representative

Involvement in Study:

Cooperation: Consent for researcher to present the Sexual Knowledge and Inventory Test (SKAT) to District II Public Health Nurses. This will take approximately 45 minutes.

Participation: 1. Provide facility for testing.
2. Allow public health nurse employees to attend and participate in testing.

Date

Signature of Representative

Researcher
APPENDIX E

Information for Participants

About Research Study

Type of Study: This is an investigation of the effects of a four-hour seminar in human sexuality, with particular emphasis on adolescent sexuality.

Reason for Study: The major purpose of this research is to determine the differences in sexual knowledge and attitudes between public health nurses who participate in a human sexuality course and those who do not.

Participants: Public health nurses of any age or gender who are actively employed in the Northeast Mississippi area.

Techniques to be Used: The seminar will include a variety of techniques: films, charts, discussions, and a 45-minute test—"Sex Knowledge and Attitudes" will be administered.

Time Frame: 1. Participants of the seminar will be in session four hours (including test time).

2. Non-participants will not be required to attend the seminar. They will be required to take the "Sex Knowledge and Attitudes Test." It will take approximately 45 minutes.

Confidentiality: All testing will be anonymous and strictest confidence will be maintained. No one except the researcher will have access to the test results.
APPENDIX F

Subject Consent Form

Control Group
(Posttest Only)

I have read the information about the research study and understand that I will participate in approximately 45 minutes of testing. I further understand that this testing will be used for research studies only, and that all testing will be anonymous and confidential.

Public Health Nurse ____________________________
Date __________
Researcher ____________________________
APPENDIX G

Subject Consent Form

Experimental Group
(Seminar Participants)

I have read the information about the research study and understand that I will be expected to attend one four-hour session on human sexuality, 45 minutes of which will be testing purposes. I understand that this seminar will be used for research studies only, and that all testing will be anonymous and confidential. I agree to participate under these conditions but understand I have the right to withdraw from the study at any time.

Public Health Nurse _______________________

Date __________

Researcher ______________________________
APPENDIX H

Course in Human Sexuality

Objectives:

1. To increase awareness of public health nurses concerning their own sexual attitudes and knowledge.

2. To introduce active listening skills that enhance counseling techniques.

3. To demonstrate that values are an intricate aspect of every individual and that value judgments can hinder therapeutic nursing interventions.

4. To increase awareness of public health nurses to alternate sexual behaviors—homosexuality in particular.

5. To increase knowledge regarding problems encountered by adolescents in dealing with their sexuality.
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<th>Topic</th>
<th>Activity</th>
<th>Method</th>
<th>Purpose</th>
</tr>
</thead>
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<td>Handouts</td>
<td>Lecture/Discussion</td>
<td>To familiarize participants with the subject</td>
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<tr>
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<td>Values Clarification</td>
<td>Values Clarifications</td>
<td>Small Groups Discussion</td>
<td>To demonstrate the complexity of value systems and the fact that value choices can be difficult to make</td>
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<td>10:30-10:45</td>
<td>Coffee Break</td>
<td>Exercises, written and verbal</td>
<td>Interventions among participants</td>
<td>For rest and relaxation</td>
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<td>10:45-11:00</td>
<td>Active Listening</td>
<td>Lecture Teams of Two</td>
<td>Film/Discussion</td>
<td>To practice active listening skills</td>
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<tr>
<td>11:00-12:00</td>
<td>Homosexuality</td>
<td>Video-taped interview with 2 male and 2 female homosexuals</td>
<td>Group discussion, participation</td>
<td>To increase awareness of the behaviors, attitudes and feelings of homosexuals</td>
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<td>12:00-1:00</td>
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<td>Lecture/Discussion</td>
<td>To increase knowledge of sexuality problems encountered by adolescents</td>
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<td>1:00-2:00</td>
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<td>Questions/Answers</td>
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<td>2:00-3:00</td>
<td>Summary</td>
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<td></td>
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References


Mississippi Statistical Abstract. (1980). Division of Research, College of Business and Industry, Mississippi State University, p. 90.


