HUMAN SEXUALITY:

NURSING FACULTY KNOWLEDGE AND ATTITUDES

by

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CHAPTER I

"Since sex identification is often a central personal characteristic that serves to define that person to himself and others, any circumstance that alters or endangers this identification will have marked effects on the self concept" (Crigler, 1974, p. 703). The types of diagnoses that can affect individuals' sexuality or how they view their own sexuality are numerous. A partial list would include such problems as emphysema, hypertension, myocardial infarction, coronary artery disease, arthritis, multiple sclerosis, cerebral palsy, spinal cord injuries, colostomies, mastectomies and diabetes. Before attempting to intervene and assist patients in the area of sexuality, the nurse must be secure in his or her own knowledge of the subject (Fonseca, 1970). The knowledge, as Adams (1976) urges, is that sexuality is not merely the act of reproduction but includes an individual's sexual practices, values and attitudes. The question is: how well do nurses understand human sexuality or the role that sexuality plays in the nurse-patient interaction (Johnson, 1970)?

Although there are studies which focus on nursing students and practicing nurses' level of knowledge about sexuality, nursing faculty knowledge and attitudes in this area have not been measured. One may, therefore, question if the educational process is adequate in this area. In

other words, are nursing faculty outdated or inadequate in their knowledge and attitudes with regard to human sexuality? This investigation focused on this question. The importance of nursing faculty as role models and resources of nursing knowledge in general has been documented in the literature (Knox, 1971; Mudd, 1969). Nursing faculty are in a primary position to provide students with two necessary components of their education: first, a role model that recognizes his or her own personal biases without imposing them on a patient and second, adequate knowledge in the area of human sexuality, that is knowledge that is current and supported by accepted authoritative sources in this area. By examining the quality of knowledge regarding human sexuality that our nursing educators bring to the educational scene and their attitudes in this area, we can perhaps better understand the nursing profession's preparedness to deliver the holistic health care services that patients' needs require.

Review of the Literature

Human sexuality covers a wide spectrum of patient problems and requires a multidisciplinary approach if the objective of total health care is to be met. With such broad dimensions, the need to focus on specific areas of human sexuality and health professionals becomes apparent. Therefore, within this study the relevant literature in three major sections will be discussed: health professionals'

knowledge of human sexuality based on previous studies, the necessity of accurate knowledge of human sexuality in nurse-patient interactions; and suggested methods to communicate knowledge and attitudes in the area of human sexuality.

Health Professionals' Knowledge of Human Sexuality Based on Previous Studies

Woods and Mandetta (1975) state simply that "Health professionals have tended to exhibit a lack of adequate knowledge about sex education and counseling" (p. 10). In 1959, 50 percent of senior medical students in a Philadelphia school agreed with the myth that masturbation causes mental illness. What is perhaps even more surprising is that 20 percent of their faculty concurred (Mudd, 1969). This is somewhat understandable when one considers that the first course in American medical schools on the subject of human sexual functioning was not taught until 1960 at Washington University (Masters and Johnson, 1972). In a study of medical students almost ten years later, more than one-third of them felt that the average student would be so uncomfortable while examining erotogenic zones that he might neglect to examine these areas (Mudd, 1969). Increased knowledge with regards to the masturbation myth is evidenced in a study cited by Pauly in 1972 in which 90 percent of the physicians considered masturbation to be a normal behavior as compared to only 50 percent of the physicians in the 1959 study (Mudd, 1969).

Cuthbert (1961), studying the sex knowledge of a class of 67 female students in nursing, concluded that they had more knowledge than women of comparable age and years of education. The comparison group of 1061 women had a median age of 20 years and a median education of 13 years. Although the nursing students had only one-half more years of education, it is doubtful that the comparison group's education would have been as specialized in terms of anatomy and physiology, venereal disease and obstetrics. It should also be noted that no norms had been established for nursing students making it impossible to know what knowledge would be expected for their educational level or how their knowledge compared with that of other nursing students.

The Sex Knowledge Inventory (SKI), utilized to test the nursing students' knowledge in Cuthbert's study, consists of 80 multiple choice items covering 13 aspects of sex information. More than one-third of the nursing students gave incorrect responses to questions concerning wet dreams, premature ejaculations, differences in sex drive and spermatic fluid. From this result, we can infer deficiencies in their nursing education in the area of the male genito-urinary system and areas of male sexuality. Their knowledge was accurate in items requiring information specific to obstetrics or female anatomy and physiology.

In 1967, McCreary-Juhasz administered a multiple choice questionnaire to prospective teachers and graduate nurses to

test knowledge of items on conception, venereal disease, menstruation, masturbation, contraception, puberty, nocturnal emissions and the structure and function of sexual organs. This study provided a comparison similar to Cuthbert's study in that the two groups tested, prospective teachers and graduate nurses, were similar in age and education level. The nurses, on the whole scored higher but missed one out of every six items on the average. The following topics had the highest number of incorrect responses for the nurses: homosexuality 31 percent, masturbation 31 percent, male reproductive organs 19 percent. Examples of some of the items answered incorrectly are as follows: "79 percent—for which sex and at which age does masturbation occur most frequently? 55 percent—what does an unbroken hymen usually indicate?" (McCreary-Juhasz, 1967, p. 49). The author concluded that these members of the nursing profession did not have information one would expect individuals to have by the age of puberty (Juhasz, 1969).

In a recent article, Lief and Payne (1975) reported on two studies, one a survey and the other a longitudinal study. The 1970 survey by the Sex Information and Education Council of the United States (SIECUS) included 176 United States baccalaureate schools of nursing. All the schools appeared to offer minimal content on human sexuality with the emphasis almost exclusively on reproductive biology. Only one school offered a course in human sexuality and it was an elective.

Five schools had such courses as electives outside of the school of nursing.

Lief and Payne's longitudinal study reported on the results of administering the Sex Knowledge and Attitude Test (SKAT), a test to gather information about sexual knowledge and attitudes. The SKAT contains four attitudinal scales: heterosexual relations; sexual myths; abortions and masturbation; as well as one knowledge scale.

This test has been administered to over 25,000 individuals over the last three years. Those tested included nursing students, registered nurses, medical students, graduate students and college students. A comparison of the groups tested yielded some interesting information:

> "Nursing students were more knowledgeable and more liberal than registered nurses on all attitude scales. Both nursing groups were significantly less knowledgeable than the female medical students and graduate students and were more conservative on all attitude scales. The registered nurses did not possess significantly more information than did college students" (Lief and Payne, 1975, p. 2027).

Age might have been thought to be the reason for the registered nurses' conservatism but the data refuted this. Religion did significantly affect the students' scores on the abortion scale. Those students who identified themselves as Catholic scored significantly lower although the author did not state the level of significance.

Responses to the statement regarding certain conditions of mental and emotional instability being caused by masturbation indicated that 28 percent of nursing students, 33 percent of registered nurses and 16 percent of medical students still believed that this was a true statement (Lief and Payne, 1975). There is no way to judge if these statistics represent a change for nursing students and registered nurses but it does indicate that the medical students were more knowledgeable since 50 percent believed it to be true in 1959 (Mudd, 1969).

In Payne's doctoral study (1976), the relationship between knowledge and attitudes measured by statements of nursing behavior and degree of comfort in sexual situations, was examined. An example of a sexual situation could be the patient who has had a prostatectomy and expresses his concern that he will be impotent. The subjects included professional family planning nurses and senior nursing students. The major hypothesis tested was that the more knowledge a nurse has of human sexuality the more favorable will be his/her attitude toward it and the more comfortable he/she will be in professional situations with sexual overtones. This hypothesis was supported.

Payne utilized the Professional Sex Role Inventory (PSRI), a scale developed specifically for this study, to measure how comfortable a nurse would be in a situation with sexual overtones. Payne admitted that there was no

predictive validity for the PSRI since it was not an actual observation of nurses in these situations. It was merely a set of 16 written situations with sexual overtones to which the nurses were to choose an answer to describe how they would have handled each situation. Subjects might have chosen a response which was the expected answer rather than the response they would be most likely to experience themselves. The PSRI was analyzed, however, for content and construct validity. The investigator stated the test did select patterns of response which indicated high or low comfort with sexuality. It is difficult to make observations of actual subject performance in this area. Nevertheless, the PSRI does provide an approximate measure of the subject's responses to sexual situations.

Payne then measured the nurses' knowledge and attitudes utilizing the SKAT and examined the correlation between the PSRI and each section of the SKAT. The analysis indicated a significantly positive correlation between each of the scores for the family planning nurses. Correlations between each of the six scores for the senior nursing students were not as significant as for the family planning nurses. The only score that showed a significant positive association between each of the scores was the masturbation score ($p < .01$).

Payne's study was thorough in the analysis of independent variables, including age, marital status, race,

nursing degree, religion, frequency of church attendance, religiosity and urbanization. Based on the demographic data which proved significant, Payne suggests that "nurses over 40 who attend church frequently, who consider themselves very religious and work in nonurban areas may need inservice training related to knowledge, attitudes and comfort regarding sexuality" (p. 292).

Of particular interest to the present investigation was the effect that the type of nursing education of an individual had on the test scores in Payne's study. Diploma nurses scored higher on the knowledge scale than did collegiate nurses but not significantly. Shea (1973) found that nurses with a collegiate education were more favorable and knowledgeable about family planning than diploma nurses.

If faculty's knowledge and attitude in any area is a crucial variable in imparting these values to students, measuring faculty knowledge and attitude becomes an important task. The one study available that deals with nursing faculty and their knowledge of human sexuality is Fontaine's survey of 124 nursing faculty. Her findings can be summarized as follows: 60 percent of the faculty members felt that at least one-fourth of their patients had sexual questions or problems related to their illness, while 30 percent felt that one-half or more of their patients did; 60 percent seldom or never asked about sexuality in taking a nursing history; 84 percent reported subjectively a fairly adequate

or better understanding of normal sexuality and considered their understanding a great deal better than that of most nurses. Overall, the faculty's self-rated ability to discuss sexual concerns with patients fell significantly behind what they thought their knowledge was in this area. Within every school but one, the faculty differed in their opinions about the inclusion of sexuality in their own curriculum (Fontaine, 1976). Fontaine stated,

> "it is disappointing to note that a group, that recognizes patients have sexual concerns and considers their understanding of sexuality adequate, does not usually include sexual aspects in their nursing history or in discussions with patients (1976, p. 175)."

Upon closer examination, many areas of weakness become apparent in Fontaine's study. The most obvious is the questionable validity of the survey information obtained. The information was a subjective evaluation of the faculty's knowledge in the area of sexuality based on their <u>self-rated</u> ability. Therefore, one can question whether the survey answers were an accurate reflection of sexuality knowledge.

Secondly, Fontaine stated, "there was no practical way of measuring the participants' actual knowledge of sexuality" (p. 175). There are at least two instruments reported in the literature, namely the Sex Knowledge Inventory and the Sex Knowledge and Attitude Test, for the sole purpose of

measuring an individual's knowledge and/or attitudes towards human sexuality. It is possible that the cost of the instrument is the reason that Fontaine made the above statement; however, the reader is left with the sense that instruments do not exist.

Lastly, Fontaine did not specifically identify her sample of subjects; she has merely reported that 124 faculty members were included. There is no way of knowing if the faculty from all three types of nursing education were included, that is, baccalaureate, diploma and associate degree programs or if all faculty surveyed were from one type of nursing education faculty.

Need for Knowledge of Human Sexuality in Nurse-Patient Interactions

The studies reviewed support Woods and Mandetta's conclusion (1975) that, though the situation has improved, there remains a lack of adequate knowledge about sex education and counseling among health professionals. The fact that this information is essential to patient care can be supported by the literature. Adams (1976) points out as health care providers nurses must understand the relationship of a person's health to his/her sexuality. This understanding includes knowledge of the support system, the knowledge base of sex information and the need for counseling or referral. The increase in prevalence of venereal disease, abortion, and sexual dysfunction necessitates that the nurse be prepared to

give sensitive, accurate help in personal areas of an individual's life. Gonorrhea is now as prevalent as the common cold (Wilcox, 1973). On sexual dysfunction alone, Masters and Johnson (1972) have stated that... "it would probably be ultra-conservative if we said that at least half of all marriages are contending with significant degrees of sexual dysfunction" (p. 27). Caring for patients who have undergone transsexual surgery, albeit still an infrequent procedure, raises new problems both in knowledge and attitudes. One of the major problems is that of selection of patients suitable for surgical treatment. One physician states that he "has come to rely heavily on the nursing staff to help in establishing the reliable criteria for deciding which patients are candidates for surgery" (Williams, 1973, p. 787).

Other patient problems seem to draw our attention away from sexuality and yet are intimately connected with it. Consider the fears of the patient and the mate hoping to renew sexual experiences after a myocardial infarction. How often does a nurse who is treating a diabetic patient consider the presence of impotence that can be secondary to diabetes? This knowledge not only helps us to deal honestly with our rehabilitative diabetic, but also could act as an aid in screening for possible diabetes. Masters and Johnson state that a man... "who is impotent has a 200 to 300 percent change of being a diabetic or prediabetic than a cross section of the population" (1972, p. 28).

Another area of sexuality which seems neglected by both nurses and physicians alike is that of coitus during pregnancy. Regarding this issue Quirk states that pregnant women usually turn to nurses rather than to physicians about sexual problems mainly because nurses are usually women like themselves. However, the study revealed that only 34 percent of the patients interviewed had received information from their physician and only 4 out of 100 patients received information from nurses regarding sexual relations during pregnancy (Quirk, 1973). These data support the need for health professionals to be aware of their patients' concerns in the area of human sexuality.

Nurses agree that "if one feels that he is undesirable or inadequate as a love or sexual object, he will certainly suffer a loss of self-esteem thereby producing feelings of inferiority, weakness and helplessness" (Crigler, 1974, p. 703). Yet equipped with this knowledge, nurses find it extremely uncomfortable to cope with the special sexual concerns of patients with spinal cord injury, cerebral palsy or kidney disease. It is not uncommon that the nurse will avoid any communication with their patients on the topic of sexuality (Crigler, 1974; Jacobson, 1974; Megenity, 1975).

Methods to Communicate Knowledge and Attitudes in the Area of Human Sexuality

How can this aspect of nursing responsibility be met? From the literature a few solutions emerge. Adams (1976)

suggests three necessary elements that provide a base for educating health professionals about sexuality: (1) self awareness; (2) obtaining adequate and accurate information, and (3) exploring societal standards and cultural norms for the range of sexual expression. The most obvious solution is a formal course offered to all nursing students on human sexuality. In a study by Woods and Mandetta (1975) data were analyzed to determine if a significant correlation existed between improvement in students' knowledge and attitudes scores and completion of a human sexuality course. Using Kendall's tau to compute partial rank correlation, a significant relationship ($p < .001$) was observed for all students between knowledge scores and completion of the course. No correlation was found, however, between liberalization of attitudes and completion of the course. The reliability of the results is open to question because of the instrument used to test the students' knowledge and attitudes. The researchers constructed the Human Sexuality Knowledge and Attitudes Inventory (HSKAI). The authors stated that the sensitivity of the measuring instrument may have affected the outcome since it was being pilot tested for reliability during the study. The results of the reliability testing were not included in the report. The subject sample tested was also extremely limited in numbers; only 23 students were tested. Considering these limitations, the study suggested much more data needs to be collected as courses emerge.

Mims reported on a 3 day human sexuality program offered as an interdisciplinary experience for nursing and medical students (1974). The course was designed (1) to supply accurate information, (2) to encourage individuals to learn about their own sexual attitudes, and (3) to help individuals develop a more tolerant attitude towards sexual matters. The SKAT was administered as a pre and post course measure of the 186 subjects knowledge and attitudes.

As a result, knowledge scores increased significantly for the total group. On the attitudinal scales, the total group moved from a more conservative viewpoint to a more liberal understanding in all areas except the abortion scale. The last of significant change in attitudes towards abortion was expected since this topic was not included in the course. The author stated that "the study indicated that a concentrated three day course is an effective, introductory, interdisciplinary experience for both nursing and medical students" (Mims, 1974, p. 253).

Mudd discussed how the use of small classroom group discussion of human sexuality relieved, in part, medical students' anxiety. This consequently led to more comprehensive patient care and communication since the medical students were more likely to discuss problems of sexuality with their patients and explore areas of possible sexual problems that might previously have been overlooked (Mudd, 1969).

Having documented how sexuality permeates our dealings with patients a single course cannot be the end of our student instruction. Mudd pointed out the significance of student identification with faculty. The literature reviewed implies that if the faculty's view of sexuality consists of ignorance and/or anxiety we can expect the students to base their actions on the impersonal models provided by faculty (Kennedy, 1975; Mudd, 1969; Pauly, 1972; Renshaw, 1973).

Purpose of the Study

The purpose of the present investigation was to obtain descriptive data that reveal the knowledge and attitudes among three groups of nursing faculty and then to compare these to the knowledge and attitudes of standardized groups. The comparison would then lead to a better understanding of nursing faculty knowledge and attitudes in the area of human sexuality. Two hypotheses were formulated for testing:

1. There would be no significant difference in the knowledge and attitudes towards human sexuality among faculty in baccalaureate, diploma and associate degree programs in nursing, and

2. Nursing faculty attitudes would be considered conservative and their knowledge considered inadequate in the area of human sexuality when compared with standardized groups.

CHAPTER II

METHODOLOGY

Setting

The study was conducted in a baccalaureate, diploma and associate degree program of nursing education in the northwest United States. The design of the research was that of a non-experimental field study.

Sample

The first group of subjects consisted of 25 of 35 undergraduate faculty drawn at random from a total of 78 faculty of a baccalaureate school of nursing. The random sample of faculty was chosen in order to equalize the size of the samples and also to allow for a predictable drop-out rate. The 25 faculty members who participated represented 70 percent of those chosen in the random sample and 32 percent of the total possible faculty members.

Twenty-two of a possible 25 faculty members of a diploma program constituted the second group. This sample represented 88 percent of the possible group members.

Eleven of a possible 14 nursing faculty members of an associate degree program participated. This sample represented 79 percent of the total group.

Data Collection Instrument

The data for this study were obtained through the use of Lief and Reed's Sex Knowledge and Attitude Test (SKAT)

developed in 1972. The SKAT has been developed as a means for gathering information about sexual attitudes, knowledge and diverse biographical data.

The SKAT was chosen as the data collection instrument for this study for the following reasons:

1. It has been utilized with a large population of over 25,000 individuals over the last 3 years.

2. It has been utilized with a population similar to the nursing faculty of this study, that is, nursing students and practicing nurses.

3. The literature provides evidence of only two validated instruments to measure knowledge of human sexuality, the Sex Knowledge Inventory (SKI) and the SKAT.

4. The SKAT is not only more current since its revision in 1972, but it is also the only instrument available to test attitudes towards human sexuality.

5. The reliability estimates for the attitudinal scales of the SKAT range from .68 to .86. The reliability for the knowledge scale has been estimated to be .87. These co-efficients confirm the SKAT as a reliable instrument in measuring knowledge and attitudes in the area of human sexuality.

The SKAT consists of four parts. Part I contains 35 items for which the subject is asked to mark his or her attitude towards the statement ranging from strongly agree to strongly disagree. The questions measure attitudes on four scales: heterosexual relations, sexual myths,

autoeroticism and abortion. The heterosexual scale measures an individual's general attitude towards pre- and extra-marital heterosexual encounters. The sexual myths scale deals with an individual's acceptance or rejection of commonly held sexual misconceptions such as increased sex education causes increased promiscuity. The autoeroticism scale deals with general attitudes towards the permissibility of masturbatory activities. The abortion scale deals with an individual's attitudes towards abortion in the social, medical and legal realm.

Part II of the SKAT contains 71 true-false items. Twenty-one of these items are termed 'lecture' items meaning the authors felt that the content could serve as a focal point of a lecture or group discussion. The other 50 items test either physiological, psychological or social aspects of knowledge of human sexuality.

Part III collects the following biographical data: age, sex, race, age at first marriage, how many years married, if an individual is first born, father's occupation, number of siblings, education of father and mother, religion, and earliest church-affiliated sex education received. Part IV measures the frequency of sexual encounters in three areas, heterosexual encounters, dating and autoerotic activities.

Procedure

An informed consent form (See Appendix A, p.43) was obtained from each faculty member participating in the

investigation. Anonymity was insured by the use of only numbers, rather than names, on all answer sheets. The numbers designated the individual's group, whether baccalaureate, diploma school, or associate degree faculty, and the rank number of individuals participating in each group. There was no list made to designate which individual utilized which numbered answer sheet. In that way, no answer sheet could be traced back to an individual.

The intent of the investigator was to administer the test at one sitting to the participants at each school. This was accomplished with the diploma school faculty and associate degree faculty who were administered the SKAT at a time convenient for them to meet as a group at their respective schools.

Eleven members of the baccalaureate faculty took the SKAT at one sitting. The remaining 13 were unable to meet as a group due to prior teaching commitments. The fact that the test was administered the last week of the school year posed a scheduling problem for many individuals. For those unable to take the test with the group the questionnaire was mailed with instructions and consent form. A self-addressed stamped envelope was provided or the questionnaire was returned directly to the investigator.

An exact set of instructions was contained within each test booklet. No time limitation was set for completing the test. The investigator was present when the questionnaire

was administered to a group or was available for any questions for those being tested.

The nursing faculty scores on the attitude scales were derived as follows: 1) for each question, the letter responses had been assigned numerical values by the authors of the SKAT (Lief, 1972), 2) the total numerical value of the questions gave the raw scale, and 3) using the Conversion Table provided with the SKAT the raw scores were converted to normed scores. The nursing faculty scores on the knowledge scale were obtained by totaling the number of correct answers and then using the Conversion Table to convert this raw score to the normed score.

Analysis of the Data

The scores of the three types of nursing faculty were compared using a one-way analysis of variance to determine if any significant differences existed. The faculty was then compared to the total standardized group and particular subgroups chosen for their similarity to the faculty. For this purpose the Z or student's 't' was utilized. The total standardized group used for comparison considered the scores of the following: nursing students, graduate nurses, medical student males, medical student females, undergraduate non-medical males and undergraduate non-medical females. The particular subgroup scores chosen for comparison with the nursing faculty consisted of graduate nurses, medical student females and graduate non-medical females.

CHAPTER III

RESULTS

The characteristics of the total faculty group and each of the three types of faculty were identified and reported in frequency counts and in percentages (See Table 1, p.23). The scores of the three types of faculty participating were examined to determine the range, mean and standard deviation of each group on the four attitude scales and the knowledge scale. The results are illustrated in Table 2, p. 24.

A comparison of the faculty groups' scores on each of the four attitude scales and on the knowledge scale was done using a one-way analysis of variance. This was done to detect any significant differences in the way the three types of faculty scored on each section of the test. This computation tested the first hypothesis that there would be no significant difference in knowledge and attitudes towards human sexuality among faculty in baccalaureate, diploma and associate degree programs in nursing. See Table 3, p. 25. No statistically significant difference was computed among the faculty groups on any of the scales. Therefore the first hypothesis was accepted as stated.

The only difference between scores of the faculty that closely approached significance at the .05 level were those of attitudes towards heterosexual relations. For this reason, each type of faculty was compared separately and then as a total group of nursing faculty with the standardized groups

Table 1

Faculty Characteristics

Group	N	Age			Sex—Female		Race			Married at Some Time		Religion		
		Years	Freq.	%	Freq.	%	Type	Freq.	%	Freq.	%	Type	Freq.	%
Total Faculty	58	24-25	1	2	57	98	Caucasian	53	91	46	79	Catholic	14	24
		26-27	4	7			Non-					Protestant	37	65
		28-30	13	23			caucasian	4	7			Jewish	0	--
		31-35	11	20								Other	5	9
		> 36	28	48										
Baccalaureate	25	24-25	1	4	25	100	Caucasian	22	88	19	76	Catholic	4	19
		26-27	2	8			Non-					Protestant	15	60
		28-30	5	20			caucasian	2	12			Jewish	0	--
		31-35	7	28								Other	4	19
		> 36	9	36										
Diploma	22	24-25	0	--	22	100	Caucasian	21	96	18	82	Catholic	8	36
		26-27	0	--			Non-					Protestant	14	64
		28-30	6	27			caucasian	1	4			Jewish	0	--
		31-35	3	14								Other	0	--
		> 36	13	59										
Associate Degree	11	24-25	0	--	10	91	Caucasian	10	91	9	82	Catholic	2	18
		26-27	2	18			Non-					Protestant	8	72
		28-30	2	18			caucasian	1	9			Jewish	0	--
		31-35	1	9								Other	1	9
		> 36	6	55										

Table 2

A Comparison of the Range Mean and Standard Deviation of SKAT Scores for Baccalaureate, Diploma School and Associate Degree Nursing Faculty

Scale	Baccalaureate			Diploma School			Associate Degree		
	Range	Mean	S.D.	Range	Mean	S.D.	Range	Mean	S.D.
Heterosexual Relations	15.91-62.87	45.55	12.24	17.65-64.61	36.63	11.82	22.87-57.65	42.16	11.16
Sexual Myths	36.73-66.07	52.89	8.04	16.41-68.33	50.68	11.84	36.73-70.59	53.79	10.82
Abortion	18.37-60.39	43.48	10.38	21.73-57.03	38.23	7.97	26.77-55.34	43.88	9.64
Autoeroticism	27.97-66.71	48.79	8.77	15.86-64.29	44.80	11.65	40.07-61.86	49.54	7.19
Knowledge	20.85-70.28	53.78	10.60	34.16-68.38	51.36	7.53	43.66-66.48	51.79	7.35

Table 3

Analysis of Variance of Mean Scores of Baccalaureate, Diploma School and Associate Degree Nursing Faculty on each Scale of the SKAT

Scale	Source	Sum of Square	Degree Freedom	Mean Squared	F
Heterosexual Relations	Between groups	936.9704	2	468.4852	3.146248
	Within groups	8189.6553	55	148.9028	
	Total	9126.6257	57		
Sexual Myths	Between groups	89.3924	2	44.6962	.410459
	Within groups	5989.1219	55	108.8931	
	Total	6078.5142	57		
Abortion	Between groups	385.4281	2	192.7141	2.073546
	Within groups	5111.6641	55	92.9393	
	Total	5497.0923	57		
Autoeroticism	Between groups	246.6125	2	123.3062	1.238790
	Within groups	5474.5699	55	99.5376	
	Total	5721.1824	57		
Knowledge	Between groups	75.1664	2	37.5832	.444563
	Within groups	4649.6814	55	84.5397	
	Total	4724.8478	57		

on the heterosexual scale only. See Table 4, p. 27.

Recognizing that no significant difference was even approached by the three types of nursing faculty scores on any other scales, the three groups were then considered as a total group of nursing faculty and compared with the total standardized group and then the subgroups available according to the SKAT manual. This procedure was done in order to test the second hypothesis that nursing faculty attitudes would be considered conservative and their knowledge considered inadequate in the area of human sexuality when compared with standardized groups.

The total standardized groups used for comparison considered the scores of the following groups: nursing students, graduate nurses, medical student males, medical student females, graduate non-medical student males, graduate non-medical student females, undergraduate non-medical males and undergraduate non-medical females. The specific subgroup scores chosen for comparison with the nursing faculty consisted of graduate nurses, medical student females and graduate non-medical females.

The reason these particular subgroups were chosen was that they most closely resembled the faculty group in three major characteristics. First, these groups resembled the nursing faculty in gender since 98 percent of the nursing faculty tested were females. Secondly, these groups also approximated the education and finally, the age of the

Table 4

Results of Comparison of SKAT Scores
for Nursing Faculty with Standardized Group

Scale	Faculty	Standardized Group	Z or t Score
Heterosexual Relations	Baccalaureate	Total	1.3714
		Graduate Nurses	.2939
		Medical Student Females	.3796
		Graduate Non-medical Females	2.9796**
	Diploma School	Total	4.8730***
		Graduate Nurses	3.8254***
		Medical Student Females	4.8174***
		Graduate Non-medical Females	6.4365***
	Associate Degree	Total	2.009
		Graduate Nurses	1.223
		Medical Student Females	1.9673
		Graduate Non-medical Females	3.182**
	Total Faculty	Total	4.4787***
Sexual Myths	Total Faculty	Total	2.2089*
		Graduate Nurses	4.4403[a]***
		Medical Student Females	.5597
		Graduate Non-medical Females	2.7015**
Abortion	Total Faculty	Total	4.9609***
		Graduate Nurses	3.6250***
		Medical Student Females	5.3906***
		Graduate Non-medical Females	8.7969***
Autoeroticism	Total Faculty	Total	1.3076
		Graduate Nurses	1.3615
		Medical Student Females	1.6769
		Graduate Non-medical Females	4.2230***
Knowledge	Total Faculty	Total	3.6440[a]***
		Graduate Nurses	1.6779
		Medical Student Females	1.3474
		Graduate Non-medical Females	1.2200

* $p < .05$
** $p < .01$
*** $p < .001$
a = The only faculty scores significantly higher than comparison group.

nursing faculty more closely than did student nurses or undergraduate non-medical students.

The t-test was utilized to determine if any statistically significant difference existed between the faculty scores and the comparison group scores on each of the attitudinal scales and the knowledge scale. Table 4 presents a comparison in each of these areas.

The results on the heterosexual relations scale supported the hypothesis that nursing faculty would be more conservative when the total comparison group was considered. The diploma faculty supported this hypothesis when compared with all of the subgroups. The baccalaureate and associate degree faculty were more conservative on the heterosexual relations scale only when compared with graduate non-medical students.

The results of the comparison between the total nursing faculty and the standardized groups on the sexual myths attitudinal scale presented a mixed picture. The nursing faculty were significantly less conservative than the total comparison group and the graduate nurses on this scale. However, the faculty did not differ significantly in their attitudes when compared with graduate non-medical females.

On the abortion scale the nursing faculty presented a more conservative attitude when compared with any of the chosen standardized groups. The abortion attitudinal scale was the only scale for which this occurred.

On the autoeroticism attitudinal scale, there was no significant difference between the nursing faculty scores and those of the total group, graduate nurses or medical student females. This was true even though the faculty scores were lower in each case. The faculty scores were significantly lower when compared with the graduate non-medical females at the .001 level.

On the knowledge scale the total faculty scored significantly higher at the .001 level than the total comparison group. The reason that the nursing faculty scores achieved significance when compared with the total comparison group is that the scores of the student nurses and undergraduate males and females brought the mean of the total comparison group down to a level that gave a false picture of the faculty's level of knowledge in the area of human sexuality. This seemed to refute the hypothesis that nursing faculty would be less knowledgeable than the comparison groups. However, when the nursing faculty were compared with the three subgroups chosen for their similarity to the faculty group, the faculty did not score significantly higher than any of the subgroups of graduate nurses, medical student females or graduate non-medical females. In fact, the nursing faculty scored lower although not significantly than the graduate non-medical females.

CHAPTER IV

DISCUSSION

As reported in the results, the first hypothesis was supported; that there would be no significant difference in knowledge and attitudes towards human sexuality among faculty in baccalaureate, diploma and associate degree programs in nursing. Only on the heterosexual relations scale did the difference among the three types of faculty scores even approach significance at the .05 level.

The results reflected the difference in the diploma faculty scores on this particular scale; their mean score being lower than the baccalaureate or associate degree faculty. No explanation existed in the literature for the difference in this particular scale. Payne (1976) reported that a combination of demographic factors, including age, religiosity, frequency of church attendance and urbanization, proved significant in identifying nurses with conservative attitudes. The only one of these factors measured in the present investigation was that of age. The diploma faculty were in fact older than the baccalaureate or associate degree faculty since 59 percent of the diploma faculty were over 36, and only 27 percent were less than 31. This exceeded the baccalaureate faculty with 36 percent being over 36 and 32 percent being less than 31 and the associate faculty with 55 percent being over 36 and 36 percent being less than 31.

This finding concurred with Payne's finding that increased age was one of the factors that significantly correlated with increased conservatism in attitudes in the area of human sexuality. However, the other factors cited in her study would also have to be documented for the population in this investigation to determine if the combination of demographic factors was indeed necessary to identify those nurses who would have more conservative attitudes in this area. The difference in age does not sufficiently explain the more conservative results for the diploma faculty since their difference in age did not significantly affect any other attitudinal scale in the present investigation.

The second hypothesis was also supported; that is, that the nursing faculty attitudes in the area of human sexuality would be conservative and their knowledge in the same area would be inadequate when compared with standardized groups. On all four attitudinal scales the nursing faculty scored significantly more conservative when compared with the graduate non-medical females. One can only conjecture from such limited data that a possible conservative image of health professionals was evidenced. This was in accord, however, with Brenton's view that "medical students come from backgrounds that promote a narrow and prudish view of sex" (p. 74). This could be a possible pattern in all types of health professionals.

Other observations of the faculty's scores on the attitudinal scales were noteworthy. On the abortion scale, the total nursing faculty scored significantly lower at the .001 level when compared to the total standardized group. In fact, the faculty scored more conservatively on this scale than any of the other attitudinal scales. This suggested an orientation on the part of the nursing faculty which saw abortions as being unacceptable. This result was in agreement with the testing of the medical students and nursing students by Mims (1976) and the nursing students by Payne (1976). In both studies these groups scored lowest, that is more conservatively, on the abortion scale as compared with the other three attitudinal scales of the SKAT. One exception to this pattern exists in Payne's testing of family planning nurses (1976). This group scored even lower on the abortion scale than the other groups mentioned, even more conservatively on the masturbation scale and lowest on the heterosexual relations scale of the SKAT. All of these studies, however, support the conservative scores on the abortion scale for this investigation.

On the other hand, the conservative nursing faculty score on the abortion scale was in opposition to Arney and Trescher's statement that a two-thirds nationwide random sample of Americans polled in February, 1976 showed a remarkable liberalization of abortion attitudes on the part of all groups and subgroups of American society (1976). The

findings of the present investigation were in agreement with those of Hendershot and Grimm in their study of abortion attitudes among nurses and social workers. They stated that social workers had more liberal attitudes towards abortion than nurses and that the attitudes of nurses towards abortions appeared to be an obstacle to the delivery of abortion services (1974).

Only on the sexual myths attitudinal scale did the nursing faculty score significantly higher, that is, less conservative, than the graduate nurses. It is difficult to determine if this finding was in opposition to Payne's statement that increased age correlated with increased conservatism in those nurses tested (1976). The main difficulty was that the norms manual for the SKAT did not limit the age of graduate nurses within any specific category. Therefore, an age comparison cannot be made. One can merely conjecture that perhaps a difference in education could explain the significant difference in graduate nurses and nursing faculty scores. The sexual myths scale does lend itself to that explanation since it measures an individual's or group's acceptance or rejection of commonly held sexual misconceptions. With more formal education, one would hope the nursing faculty had been introduced to the facts that would dispel commonly held sexual misconceptions.

The nursing faculty did not score significantly higher and in fact scored lower although not significantly when compared with medical student females. If education

explained the difference between graduate nurses and nursing faculty scores this finding would coincide with that theory since medical student females and nursing faculty would be much more similar in educational background and therefore not score significantly different.

On the knowledge scale the nursing faculty scored significantly higher at the .001 level when compared to the total comparison group. This was expected since the total comparison group's mean was brought down due to the inclusion of student nurses' and undergraduate male and female scores. There was no significant difference when nursing faculty were compared with the graduate nurses, female medical students or female graduate non-medical students who more closely resembled the faculty in educational preparation. Did this mean the nursing faculty knowledge was adequate in this area? It did not. An important consideration was the currency of the data utilized for the standardized subgroups. The norms manual for the SKAT was dated to January, 1973 so that for all research purposes it represented a compilation of those population's scores through 1972. Since 1972, physicians have become more knowledgeable in the area of human sexuality. Dr. R. B. Howard, in 1974 wrote that "medical schools appear to be among the last institutions in our society to discover sex but happily all this is changing" (p. 25). He felt that physicians in 1974 were more comfortable with their patients in discussing sexual activity due to the inclusion of sex education in almost all medical curriculums. This was

compared with Megenity's statement, one year ago that "today we are graduating nurses who are almost completely unprepared in an area related to health and human behavior—sexuality" (p. 1171). A definite limitation was the fact that updated data on the standardized groups was not available. However, it was felt that with the trend in medical schools and our society in general for more available information in the area of sexuality the data, if available, would have shown a marked increase in knowledge on the part of medical students and graduate non-medical students alike. Then a comparison with nursing faculty would more readily have shown the failure of nursing faculty to progress in their knowledge of human sexuality. They were only comparable to female medical students and graduate non-medical students from 1972 in their knowledge of human sexuality.

This finding was in accord with the many studies that report all types of health professionals as having an unbelievable amount of sexual misinformation (Brenton, 1974; Garard, 1972; Lief, 1970; Mudd & Seigel, 1969; Woods & Mandetta, 1974). But more important is that the findings agreed with the current studies that point out the particular deficiencies in nursing education (Megenity, 1975; Payne, 1976). Therefore, nursing faculty knowledge in the area of human sexuality was considered inadequate, as stated in the second hypothesis.

The results of this study must be considered in relationship to the limited size of the sample. Nevertheless, it does point out that the area of human sexuality may be inadequately dealt with in nursing curricula in the study schools. If faculty are conservative and transmit this attitude to students, then little change in patient care can be expected. Therefore, it is important that faculty study this issue further to identify what action they deem necessary to adequately prepare students to deal with patients' sexual needs.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The knowledge and attitudes of three types of nursing faculty, baccalaureate, diploma school and associate degree, in the area of human sexuality were determined as a result of their performances on the Sex Knowledge and Attitude Test (SKAT). Each type of nursing faculty was compared with the other types of nursing faculty to determine if any significant differences existed. No significant differences were noted among the faculty scores on any of the four attitudinal scales or on the one knowledge scale. The first hypothesis was therefore accepted as stated.

The three types of nursing faculty were then considered as one group of nursing faculty and compared with a total standardized comparison group and particular standardized subgroups that most closely resembled the nursing faculty. The nursing faculty were found to be significantly more conservative on all four attitudinal scales when compared to graduate non-medical females. The most significantly low score for the nursing faculty, that is the most conservative, was on the abortion scale.

On the knowledge scale of the SKAT the nursing faculty scored significantly higher than the total comparison group as expected. This was explained by the fact that the total

comparison group's mean score was lowered significantly by the inclusion of nursing student and undergraduate male and female scores. The nursing faculty did not score significantly higher than any of the subgroups of graduate nurses, medical student females or graduate non-medical females. The nursing faculty's knowledge in the area of human sexuality was judged to be inadequate. The second hypothesis was therefore also accepted as stated.

Conclusions

Considering the limited numbers involved in this study, the following conclusions were drawn for the population tested:

1. Nursing faculty teaching in a baccalaureate, diploma and associate degree program were similar in their knowledge and attitudes in the area of human sexuality.

2. Nursing faculty attitudes in the area of human sexuality are conservative, particularly with regard to abortion.

3. Nursing faculty knowledge in the area of human sexuality is inadequate in spite of the increasingly available sources of this knowledge.

Recommendations

The following recommendations for further study developed as a result of the present investigation:

1. Replication of this study (a) using a larger population of faculty representing all three types of nursing programs to increase the confidence in the findings and enlarge their applicability, and (b) with concurrent collection of more demographic data about the individuals being tested in order to correlate results more easily with previous studies in this area.

2. Establishment of updated norms for all types of health professionals' knowledge and attitudes in the area of human sexuality in order to measure progress or need for progress in this area.

3. Further investigation of the determinants of the attitudes of nurses in the area of abortion to ascertain possible effects these attitudes could project to the health care delivery system.

4. Investigation of the concept of the "conservatism" of health professionals, not only in their attitudes in the area of human sexuality but in any area that could affect the health care delivery system.

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APPENDIX A

Consent for Human Research Project

I, _____
(First Name) (Middle Initial) (Last Name)
herewith agree to serve as a subject in the investigation named Human Sexuality, Nursing Faculty Knowledge and Attitudes, under the supervision of Barbara Gaines, R.N., D.Ed. The investigation concerns the measurement of current knowledge and attitudes of nursing faculty in the area of human sexuality.

It is my understanding that I will be required to answer questions on a paper and pencil test. The questions relate to attitudes towards areas of human sexuality, knowledge of human sexuality, basic biographical data and sexual experience. The time required of me is about one hour.

All information that I give will be handled confidentially. My anonymity will be maintained on all documents, which will be identified by means of code numbers.

I may not receive any direct benefit from participating in this study but understand that my contribution will help expand the degree of knowledge in regard to nursing faculty knowledge and attitudes in the area of human sexuality.

Jane Furlong has offered to answer any questions I might have about the task required of me in this study.

I understand that I am free to withdraw from participating in the investigation at any time or free to omit answers to any questions without this decision otherwise affecting my employment status.

I have read the above explanation and agree to participate as a subject in the study described.

Signature _____

Witness _____

Date _____

AN ABSTRACT OF THE CLINICAL INVESTIGATION OF

BARBARA JANE FURLONG

for the Master of Nursing

Date of receiving this degree: June 11, 1977

Title: HUMAN SEXUALITY:

NURSING FACULTY AND ATTITUDES

Approved: [redacted]

(Associate Professor in Charge of Clinical Investigation)

The nursing profession is beginning to understand the crucial relationship of sexuality to patients' state of wellness. To assess any need effectively in the area of human sexuality, a nurse must be adequately prepared with an accurate knowledge base and be aware of his/her own sexuality. Nursing literature documents the lack of knowledge in the area of human sexuality for both nursing students and practicing nurses. Nursing faculty, however, have not been evaluated.

To gain a better understanding of nursing faculty knowledge and attitudes in the area of human sexuality the following hypotheses were tested within this non-experimental investigation: (1) There would be no significant difference in the knowledge and attitudes towards human sexuality among faculty in baccalaureate, diploma and associate degree programs in nursing, and (2) Nursing faculty attitudes would be considered conservative and their knowledge considered inadequate in the

area of human sexuality when compared with standardized groups. Three types of nursing faculty, baccalaureate, diploma school and associate degree, were tested utilizing the Sex Knowledge and Attitude Test (SKAT). There were no significant differences among the scores of the three groups of faculty on any of the scales. The three types of nursing faculty were then considerd one total group and compared with a standardized group and particular subgroups resembling the nursing faculty. The nursing faculty were found to be significantly more conservative on all attitudinal scales, especially the abortion scale, when compared to graduate non-medical females. Only on the knowledge scale did the nursing faculty score significantly higher than the total standardized group. This was expected since the total standardized group score included scores of student nurses and undergraduate male and females. The faculty did not score significantly higher than any of the subgroups. Both hypotheses were therefore accepted. The following conclusions were drawn: (1) No one type of nursing faculty stands out as being more knowledgeable or more liberal in their attitudes in the area of human sexuality; (2) Nursing faculty attitudes in the area of human sexuality are conservative, particularly with regard to abortion, and; (3) Nursing faculty knowledge in the area of human sexuality is inadequate in spite of increasingly available sources of this knowledge.