

ATTITUDE CHANGE IN BACCALAUREATE STUDENT NURSES
TOWARD SEXUALITY IN THE AGING

A THESIS

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SHIRLEY GOOD KERWIN, B.S.N.

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CHAPTER I
INTRODUCTION

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INTRODUCTION

"Each day there are 1,000 more older Americans; . . . By the year 2000, older people could make up one-fourth of the total population" (Butler and Lewis 1973, p. 27). With the increased visibility of the old, a burgeoning interest in aging has developed. This appears to be a concern born of necessity rather than altruism, but it is nevertheless a positive step.

Persons who are past sixty-five have survived over six decades of turbulent change including two world wars, a severe national depression, industrialization, and urbanization. Religious, moral and social systems have bent with the times and so have the men and women who have survived this ever-changing period. In this period of history, they contributed much of the labor, skills, and ideas which have revolutionized modern life. Both their past contributions and their present adaptability are to be applauded.

Instead one finds the elderly discriminated against because they have dared to survive. In the evolving youth-oriented culture of today they are old, and therefore undesirable. Butler (1973, p. ix) has coined a new term, "ageism," to describe the stereotyping of and discrimination

against the old because of age, just as racism and sexism accomplish this in relation to skin color and gender.

The literature reveals that young nursing students also stereotype the elderly and consider them among the least desirable patients (Gunter 1971). In these attitudes, the students reflect the ageism of many people who are not yet sixty-five, and of some people who are already old.

Revised attitudes and actions are needed to effect change. Such a change would allow the aging to utilize their many skills and flexibility to benefit themselves and the younger age groups.

The sexuality of a human being exists from conception to death and to be without feelings of sexuality is to be an incomplete person. Yet, for the aged individual, sexual desires and feelings are the least recognized and the most ridiculed of his psychological needs. In a world which abounds with sexual connotations and supposedly, sexual freedom, old people are denied the dignity of their sexuality.

In response to the lengthening of life, nursing has become more concerned with the care of the aging and some attention is now being directed toward the sexual concerns and abilities of older people. The literature reveals a lack of evaluative studies which measure and report the effectiveness of teaching about sexuality in the aging.

This study is designed to evaluate the effectiveness of a class on sexuality in the aging through attitude measurement.

Statement of the Problem

Negative attitudes toward the aging by society cause the increasing human life span to lack dignity and satisfaction. Nursing students, in their contact with aging people, may contribute to this problem by failing to perceive in these elderly one of man's most basic components--sexuality, and the sexual needs and abilities of the aging. Recognition of and attention to this aspect of aging is beginning to appear in the nursing literature and in some nursing curricula. There is a vital need to evaluate and report the effectiveness of teaching methods aimed at enhancing the understanding of and respect for the sexuality of aging people.

Purpose of the Study

The purpose of the study is to determine if a three hour class concerned with sexuality in the aging will produce in baccalaureate student nurses a change in attitude toward the sexual needs of the elderly.

Background and Significance

Research today is directed towards lengthening the human life. This goal is being accomplished dramatically.

Smith (1973) cites the 1970 census figures which show that one in ten Americans is sixty-five or older. He contrasts this with the 1900 census in which one in twenty-five Americans was sixty-five or older. Such an increase in life span is not sufficient in itself. Dignity and satisfaction should be present in life, brought about by meeting not only the physical needs of the human being, but also by meeting his psychological needs. Relatedness, meaning, sexuality and self-acceptance are needs shared by all human beings at all ages (Smith, p. 26).

The sexual needs of aging are well documented in the literature. Feelings and needs in sexuality, as in the other psychological areas, differ between old and young only in their intensity. Knopf (1975, p. 54) points out that the emotions remain an inseparable part of life, although they lessen with age. "To be an old person without feelings of sexuality is to be a selfless old person. . . . Everyone at every age is a sexual creature" (Smith 1973, p. 31).

Instead of compassion and concern being directed toward the aging, society has categorized them as, "senile, rigid in thought and manner, garrulous, and old-fashioned in morality and skills." Butler and Lewis (1973) have cited this categorization as part of ageism which also involves stereotyping and discrimination on the basis of age. Utilization of the many skills that exist in older people is

discouraged by the younger generations and even the aged themselves may disvalue their own abilities.

Gunter's (1971) study reveals that nursing students dislike caring for the elderly. As part of the concept of ageism, younger generations see older people as different from themselves. They are therefore able to consider their elders as less than human. Mental and health needs can then be more easily ignored (Butler and Lewis 1973).

Despite an increase in published material dealing with aging sexuality, sexual stereotypes directed toward the aging persist in all classes and ages of society. Lack of knowledge about the sexual needs and desires of the elderly tends to dehumanize aging persons and those who interact with them.

The nursing literature does reveal the increasing inclusion of geriatric courses in nursing curricula. Some of these include the sexual aspects of aging. George (1972) indicated that the responses from her students toward sexuality in the aging were positive ones, but evaluative studies of the nursing process or other similar ones have not been published.

Teaching the young about the sexual needs and desires of the old appears to be an excellent way to develop in them a positive attitude towards the sexuality of those past sixty-five. An attempt to develop empathy in the

delicate area of sexuality is a very direct approach to eliminating ageism. The development of acceptance in this arena of intergenerational anxiety should generate empathy towards other concepts of aging. The older person may be seen as a complete human being worthy of care and concern.

This study has not measured any attitude changes in the students' view of their own sexuality. It is believed, however, that the students' increase in knowledge about aging sexuality should contribute to knowledge of their own sexuality and an awareness of this aspect of their personality as an ongoing life force.

Saul (1974) has touched briefly on some aspects of this justification in her statement that:

As the learner reaches out, to grow and change, he understands himself better within a newly clarified perspective. Hopefully, such learning will encourage service to older people to be given with hope and compassion. (p. 3)

Hypothesis

There will be no difference in attitudes toward the sexual aspects of aging between baccalaureate student nurses who receive a class on sexuality in the aging and those students who do not receive the class.

Definition of Terms

For the purpose of clarification, the following terms were defined for use in this study:

1. Attitude: "A consistency in response" (Kisler et al. 1969, p. 2) which can be measured by "positive or negative affectivity" (Shaw and Wright 1967, p. 10).

"Attitude is based on the student's response, inclinations and feelings, prejudice or bias, preconceived notions, ideas, fears, and conviction . . ." (Vaughn 1964, pp. 41-42).

2. Sexuality: Shope (1975) defines sexuality as:

. . . the total characteristics of an individual--social, personality, and emotional--that are manifest in his or her gender-genital orientation. . . . Human sexuality is more than sexual behavior, feelings, attitudes and beliefs. Sexuality encompasses the whole person including his or her personality, general emotional tone, intellect, physical makeup, and spiritual functioning (p. 36)

3. The Aging: Those persons who are sixty-five years of age or older. The terms elderly and old will be used as synonyms.

4. A Class on Sexuality in the Aging: This three hour class is part of a nursing process entitled, "Care of the Elderly," and can best be defined by stating the objectives of the class. Its objectives are to enable the student to:

- a. Define sexuality.
- b. Begin to understand and reject sexual stereotypes directed at the aging.
- c. Recognize the sexual needs of those persons over sixty-five.
- d. Recognize both the sexual limitations and potentialities in this age group.

- e. Be aware of the psychological and physiological changes in the male and female which affect sexual intercourse in this time period.
- f. Direct older clients with sexual problems to sources of assistance.

Delimitations

The study was limited to junior baccalaureate student nurses at one university school of nursing who were participating in the clinical module, "Care of the Elderly." Students were randomly assigned to either the experimental group or one of two control groups. They were exposed to the independent variable, the class on sexuality in the aging, if it was appropriate to their group assignment.

Assumptions

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

1. A knowledge of sexuality in the aging is necessary to care for and understand the aging individual as a complete person (Burnside 1973, p. 15).
2. Sexual stereotypes of old people exist in baccalaureate student nurses (Burnside, p. 22).
3. Learning about the sexual aspects of aging is facilitated by a teacher who demonstrates care for and knowledge about the sexuality of those over sixty-five (Rogers 1969, p. 165).

4. A climate of intergenerational acceptance and nonjudgmental attitudes facilitates learning about sexuality (Mace 1974, p. 16).

Summary

This first chapter introduces the need for recognition of and concern about sexuality in the aging, attitudes toward aging sexuality, and the measurement of such existing attitudes. The format for the ensuing chapters is as follows: Chapter II, Review of Literature, contains background material which establishes the importance of sexuality in the aging. It examines human sexuality and the nursing process as documented in current writings, and notes research concerning attitudes of the young toward the aging. Chapter III, Procedure for Collection and Treatment of Data, describes the testing instrument and its development. Data collection is detailed, and treatment of the data is included with a description of the selected statistical tests. Chapter IV, Analysis of Data, contains the data obtained, and an interpretation of that data. Chapter V, Summary, Conclusions, Implications, and Recommendations, includes a brief summary of the findings of the study along with suggestions for future studies.

CHAPTER II
REVIEW OF THE LITERATURE

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REVIEW OF THE LITERATURE

Introduction

Gerontological literature has established the importance of sexuality in the lives of the aging population. Attitudes toward human sexuality have been researched and measured. Likewise, studies have documented attitudes of young people, including student nurses, toward the aging. However, a study specifically designed to measure attitudes of young people toward sexuality in the aging has not been done.

Therefore, in presenting this review of the literature, the approach will be threefold. First, an attempt will be made to review the literature which recognizes sexuality in the aging. Next, human sexuality and the nursing process will be discussed as documented in current writings. Thirdly, research about attitudes of the young toward the aging will be highlighted. These approaches will converge in an effort to underline the need for and the direction of the task of attitude change toward sexuality in the aging.

Recognition of Sexuality in the Aging

Krizinofski (1973) notes the conceptual confusion between the words, "sex" and "sexuality." Sex is a gender designation with a copulative connotation. Sexuality incorporates all aspects of the personality. "It is an integral part of one's self-concept and as such is intrinsically involved in one's concept of body image and self-esteem" (p. 673). In the aging, the physical expression of this sexuality may vary from touch to sexual intercourse on a continuum of bodily contact. All expressions are valid and pleasurable manifestations of the masculinity or femininity which is present from conception to death.

Burnside (1973, p. 16) uses the word, sexuality, broadly and not to mean sexual behavior per se. She refers to sexuality as affectional needs--tenderness, "stroking," flirting techniques used by both sexes, and also the sexuality involved in "touching." She emphasizes that the elderly need affection, tenderness and touch.

While Burnside writes about meeting sexual needs through touch and tenderness, other researchers are publishing studies about older couples who are continuing sexual intercourse. Braceland (1971, p. 54) reports that many couples have sexual intercourse into their eighties and nineties. Masters and Johnson (1971) point out the potentialities and limitations of sex in the aging and the

need for regularity of sexual performance to maintain responsiveness.

It is a reflection of cultural attitudes that the older as well as the younger generations may be appalled by such studies. Berezin (1967) says that:

Older people themselves adopt a negative view of their own sexual desires, fantasies, and feelings. In other words the myths of sexless older years held by young people becomes a self-fulfilling prophecy when they themselves reach old age. (p. 14)

Schwartz (1973) points out the paradox of needs and societal pressure:

The need for affection is universal . . . most especially in the late years, when many of the self-esteem supporting factors diminish. . . . Paradoxically, however, two factors primarily appear to confound the full satisfaction of this need in the old. One factor is the broadly based attitude bias and the stereotypes held by many regarding the physical intimacy and sexual behavior in the old. The second factor is the all too prevalent lack of opportunity for such behavior on the part of elderly people. (p. 24)

Smith (1973) puts sexuality into a perspective that may be helpful and relevant to both young and old. "To be a living human being is to be a sexual person and such feelings and impulses are no more inappropriate than are appetites for food or hunger for fine music or literature" (p. 30).

Human Sexuality and the Nursing Process

Kennedy (1974), a priest-psychologist, reflects the attitudes found in the nursing literature about the roles of nurses in understanding the sexuality of their patients:

Sexuality is after all, a form of communication in itself, a language that may be hampered by too many translations. . . . We may appropriately begin with patience and compassion rather than urgent advice and judgment for all those types who earnestly want to understand their own sexuality. (p. 107)

Krizinofski (1973) writes that nurses are becoming aware of human sexuality and its role in health and disease. She makes a specific plea for the aged and long-term patients, and consideration of their sexual needs. She cites nine articles in the nursing literature which deal with some aspects of sexuality (p. 675). Much of this material indicates the need for courses in human sexuality so that nurses may better understand their patients and themselves. It was urged that these courses be introduced into nursing curricula. Burnside (1973) notes that nurses have ignored the sexuality of their patients, young and old, and other health professionals have done likewise. She asks, "How can we as professionals create an atmosphere that allows sex its proper role in later years?" (p. 15).

As recently as February 1975, the World Health Organization (WHO) of the United Nations reported that human sexuality is inadequately taught to medical and nursing students. They advise that, "to help acquire non-judgmental attitudes, many students may need help in coming to terms with their own sexuality" (Houston Chronicle 1975). This is reinforced by Burnside (1973) who believes that

professionals can be more instrumental in promoting a healthful attitude and milieu for the aged, if they have their own attitudes and feelings in control (p. 21).

Mandetta and Woods (1974) are among nurse-educators who have begun teaching human sexuality in the context of the nursing curriculum. An evaluation of their pilot-program showed that at completion of the course there was a significant increase in the students' knowledge about sexuality. However, no significant changes were seen in the students' attitudes toward sexuality.

This finding suggests that such a course is an effective vehicle for enlarging the students' store of factual information, and it tends to confirm the educational theory that changes in the cognitive area occur more rapidly than those in the affective domain. (p. 527)

In a later article written about this course in human sexuality (Woods and Mandetta 1975), the authors discussed the increase in knowledge of sexuality as well as the lack of change in attitudes toward sexuality. They noted the caution of social-psychologists that attitudes are likely to persist. The probability of attitude change may increase with exposure to new information, but a person's belief may not change even when faced with information that disputes those beliefs.

The Mandetta-Woods study utilized a small, nonrandom sample as well as a new tool, the Human Sexual Knowledge and Attitude Inventory (HSKAI), and it was stressed that replication and further reliability testing were needed.

A five-day interdisciplinary course in human sexuality was reported by Mims, Yeaworth and Hornstein (1974). Participants included nursing students. All subjects showed a significant difference between pretest and posttest mean scores on all items of Lief and Reed's Sex Knowledge and Attitude Test (SKAT), except the abortion attitudinal scale. It was felt that "this type program has the potential of sensitizing students to their own sexual feelings and attitudes and to increase awareness of sexual difficulties of patients seen in their daily encounters" (p. 252).

George (1972) included in her gerontology course sexuality as a vital aspect of aging. Students found, to their surprise, that old people were more comfortable with sexual questions than they were. As the course developed:

The students presented openly and in depth, the theories on sexuality of the aging man and woman, considering both the physical and psychological components, and dispelling many of the myths. The level of maturity and competency with which this group presented the material and answered questions would have impressed any advocate of sex education. (p. 407)

Interest of nursing students in the sexual aspects of aging is also noted by Burnside (1973) whose gerontology class requested a lecture on the subject. In the discussion after the presentation, the students ventilated their feelings of inadequacy and frustration when confronted with a sexual problem in their elderly patients.

Fonesca (1970) states that nursing, as a nurturing profession, can facilitate the expression of sexuality through sublimation. She reinforces those authors who assert that nurses must know themselves before beginning the vital job of teaching human sexuality to others. Finally, she highlights the obligatory role of nurse-educators in facilitating inclusions of human sexuality in the nursing process.

An examination of current nursing literature and nursing curricula indicates that course models for teaching human sexuality to nurses are being developed and implemented.

Attitudes of the Young Toward the Old

The Tuckman-Lorge questionnaire designed to measure attitudes toward old people has been used frequently since it was developed in 1953. When administered to two hundred and eighty young people at Duke University in 1960, it revealed marked negative attitudes toward the aging (Axelrod and Eisdorfer 1961). Campbell's (1971) study of the attitudes of nursing personnel toward the geriatric patient found the same phenomenon to be true. Even with a salary differential, nursing personnel considered the older person the least desirable patient. Gunter (1971) published a study of students' attitudes in geriatric nursing, and

although stereotypes regarding the aged were reduced by a gerontology course, the students still preferred not to work with the elderly. Surprisingly, as knowledge about the aging increased, desire to care for the old person decreased.

George (1972) conducted a gerontology course which was evaluated by the students and herself to be a successful introduction to aging. The basis of its appeal appeared to be the experiential approach which was used. It is noted also that the students' first experience with old people was with those who lived relatively happy lives.

Summary

The lack of specific studies concerned with the attitudes of young people toward sexuality in the aging should be understood in light of the preceding literature review. The inability to recognize the old as sexual individuals, the failure in the past to include human sexuality in the nursing process, and the prevailing negative attitudes toward aging throughout society are well documented.

CHAPTER III
PROCEDURE FOR COLLECTION AND TREATMENT OF DATA

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PROCEDURE FOR COLLECTION AND TREATMENT OF DATA

Introduction

This experimental, explanatory study was done to determine if a three hour class concerned with sexuality in the aging would produce in baccalaureate student nurses a change in attitude toward the sexual needs of the elderly. The testing instrument used was an attitude test designed by the researcher to determine positive and negative attitudes toward sexuality in the aging (appendix A).

Setting for the Study

The setting for this study was a school of nursing which is a part of a large university system in the southwestern United States. The campus is located within a large medical complex in a major, highly populated city. The school of nursing is accredited by the National League for Nursing.

The philosophy of the school of nursing as an integral part of the university system is an all-inclusive one. Those statements which are relevant to this study have been summarized from the philosophy of the school of nursing and are presented to demonstrate that such research

is appropriate within the conceptual framework of the school's curriculum.

The faculty of the school of nursing believe that:

1. Teaching and research are equally important functions of an institution of higher learning.
2. Nursing is one of the interdependent helping professions which is committed to the principle of providing optimum health care, a right of every individual.
3. Professional nursing practice involves assessing health needs, and planning, directing, and evaluating nursing care for individuals and groups in a wide variety of settings. Health needs must be broadly interpreted by the nurse, and she must be:
 - a. Alert to the social and psychological needs of patients as well as to the biological needs.
 - b. Skillful in communicating with the patient and sensitive to his thoughts, feelings and values.
4. Learning is a life-long process which results in a change or reorganization of behavior.
5. Each student is an individual who has unique attributes, dignity and worth. A climate in which educational equality exists and which promotes self-actualization of students and faculty is made possible by the contributions of both teachers and students.

Sample Population

The sample studied was a group of eighty-six baccalaureate student nurses who were beginning their junior collegiate year. These students were required to take the nursing process, "Care of Well Individuals." A clinical module within that process introduced the theoretical and practical aspects of caring for the elderly. The class on sexuality in the aging was presented within the context of that gerontology module.

This class was designed to assist the student nurses in recognizing and accepting the sexual needs of the aging person, and to acquaint them with the physiological changes affecting these sexual needs. Presented in this class was material concerned with sexuality in the aging. This included discussion of sexual stereotypes, needs, limitations, potentialities, and physiological and psychological changes applicable to this age group. Sources of professional assistance were introduced. Special emphasis was placed on the nurse-patient relationship.

The terminal behavioral objective for the nursing process, "Care of the Elderly," states that the student:

Applies knowledge of all behaviors (social, psychological and biological) indicating wellness.

- a) Specifies knowledge of the behaviors indicating wellness.
- b) Bases nursing care on the above knowledge.

The enroute or class objectives state that the student:

- 1) Defines sexuality.
- 2) Begins to understand and reject sexual stereotypes directed at the aging.
- 3) Recognizes the sexual needs of those over sixty-five.
- 4) Recognizes both the sexual limitations and potentialities in this age group.
- 5) Be aware of the physiological and psychological changes in the male and female which affect sexual intercourse in this time period.
- 6) Directs older clients with sexual problems to sources of assistance.

The students in the study group had already begun clinical experience with the elderly. Most of the supervised experience was with aging patients in local nursing homes.

One hundred and four students participated in the initial testing period of the study. However, attrition from the school of nursing, absence from the second testing session, or incompleteness of the testing instrument, demographic data, or "Student Permission Form" (appendix B), reduced the number of students who were measured in this study to eighty-six.

The students were divided by random assignment into three sections of approximately thirty-five students in each section. This assignment was made by the faculty of the school of nursing to facilitate optimum teaching and supervision. These three divisions were then randomly assigned to the experimental group or one of two control groups.

Development of the Research Tool

Tools to measure attitudes toward sexuality in the aging are essentially nonexistent. Lief and Reed's (1972) Sexual Knowledge and Attitude Test (SKAT) contains some attitudinal statements which may apply to this age group, but they are not specified as such. The Tuckman-Lorge Questionnaire (Axelrod and Eisdorfer 1961) contains four appropriate items. Therefore, a paper and pencil test was developed specifically to measure attitudes toward sexuality in the aging.

Frame of Reference

The frame of reference for this test was the attitudinal content of the class, "Sexuality in the Aging." The test was developed segmentally. These segments corresponded to divisions of class material created by the behavioral objectives. This structure facilitated ease of design and examination of the testing instrument for relevance. Sexual stereotyping of the aging was used as the basis for many statements, and this was not used as an individual segment.

Selection of an Ordinal Scale

A Likert-type scale was used to measure responses. The Likert-type scale is a summated scale consisting of a series of items to which the subject responds. The

respondent indicates his agreement or disagreement with each item on an intensity scale which generally requires non-parametric statistics (Selltiz et al. 1956, p. 366).

This scale is highly reliable when it comes to a rough ordering of people with regard to a particular attitude or attitude complex. The score includes a measure of intensity as expressed on each statement (Fox 1970, p. 233).

Scoring of Responses

With this testing instrument, the choices available for agreement or disagreement were: "strongly agree," "agree," "disagree," and "strongly disagree." The choice of "undecided" commonly found in this scale was omitted in order to combat clustering of responses (Abdellah and Levine 1965, p. 240) and to force a positive or negative response.

Each statement was scored from one to four, with the number four indicating the most positive response. Appendix A includes the scoring of each statement. A total score of one hundred indicates the most positive attitudes.

Pretesting the Instrument

Because this was a new testing instrument, the instrument was pretested to determine reliability and validity. The attitudinal statements were initially evaluated by five nurse-educators who had previously been

exposed to the class material as presented by the researcher. They were asked to critique the statements for researcher bias and to respond with "yes" or "no" to specific questions on clarity and content validity for each statement. (The letter of request sent to the nurse-educators is duplicated in appendix C.) Twenty-six statements were included in this initial instrument. The Binomial Test (Siegel 1956) was used to determine the significance of agreement or disagreement of the nurse-educators. This test is a nonparametric one appropriate for use with qualitative data. It was chosen because the data are in two discrete categories and the design is of the one-sample type. It is also able to measure a group as small as five. Utilizing the Binomial Test it was necessary to drop one attitudinal statement from the testing instrument.

The items were then pretested by a comparison group of thirty-one junior student nurses at another university. The test-retest technique was utilized to determine the reliability of the instrument (Abdellah and Levine 1965, p. 321). The Chi-square One Sample Test (Siegel 1956) was used to determine whether or not the frequencies observed in the retests departed significantly from those observed in the initial tests. The attitudinal responses to each of the twenty-five statements on the retests did not change significantly at the .05 level from the attitudinal responses

on the initial tests. Since the time lapse of two weeks between the initial test and the retest was not considered sufficient to warrant change (Abdellah and Levine 1965, p. 263), the reliability of the instrument was deemed acceptable. This pretesting also indicated clarity of content and ease in administration.

The testing instrument essentially determined positive or negative attitudes, and did not measure fine attitudinal differences. As such, it was not designed to be an extremely sensitive instrument.

Demographic Variables

Information about demographic variables was requested as part of the testing instrument. These included sex, marital status, race, religion, current religious participation, and previous exposure to a course or seminar on human sexuality. These variables were utilized as classificatory material and were not considered independent variables. The variables are presented in tables corresponding to student scores, so that the demographic influences can be observed.

Data Collection

The research design was a three-group version of the "Solomon Four-Group Design" (Campbell and Stanley 1963, p. 24). The identical three-group design is also described by Kerlinger (1964, p. 339). The design is shown in table 1.

TABLE 1

THREE GROUP TESTING DESIGN INCORPORATING
A POSTTEST ONLY CONTROL GROUP

	Pretest	Class (Independent Variable)	Posttest
Group I (Experimental)	0 ₁	X	0 ₂
Group II (Control)	0 ₃		0 ₄
Group III (Control)		X	0 ₅

Because of random assignment, the first class of students was Group III, a control group. They received the independent variable, X, the class on sexuality in the aging, and were posttested, 0₅, four weeks after the learning experience. This time frame was considered desirable for three reasons. It avoided the problem of immediate recall and allowed time for absorption of the learning material (Richter 1966, pp. 5-14). It also facilitated pretesting of the other two student divisions at the same time. This group testing equalized the effects of history (Fox 1970, p. 319). In addition, it eliminated the time gap between the testing of groups in which some group socialization and discussion of the testing instrument could be anticipated (Campbell and Stanley 1963, pp. 13-21).

The second class of students was the experimental group, Group I. They received the class on sexuality in the aging, X, one day after their pretest, O_1 . The posttest, O_2 , was administered four weeks after the independent variable was given.

The third class of students, Group II, were posttested at the same time as the experimental group. However, they were posttested without exposure to the independent variable. After posttesting was completed, these students participated in a class on sexuality in the aging. Therefore, they were able to fulfill the class requirements of the school of nursing.

The three-group, before-after design was chosen because it incorporated a posttest only group. In addition to a comparison control group which differentiated the effects of history and maturation from the effects of the experimental manipulation, there was the advantage of a group which did not receive the possible interactive or sensitizing effects of the pretest (Campbell and Stanley 1963).

At the initial testing period for all three groups, the researcher introduced herself, and explained that she was measuring attitudes toward sexuality in the aging by means of a paper and pencil test. The average testing time was stated as being seven minutes as determined by

pretesting. Emphasis was given to the voluntary nature of the testing and to the confidentiality of the results.

Instructions were imparted concerning the necessity to:

1. Sign and date the "Student Permission Form"
2. Use a birth date or student I.D. number as a means of matching the tests
3. Complete the demographic data
4. Answer all the statements

Treatment of the Data

Because of the testing design and its asymmetry, no single statistical technique appeared appropriate. Therefore, three nonparametric tests were utilized. The nonparametric approach was chosen because the test results are measured by means of an ordinal scale (Siegel 1956, p. 3).

The first analysis determined whether posttest scores significantly differed. The Kruskal-Wallis One-Way Analysis of Variance by Ranks (Siegel 1956) was used, testing O₂, O₄ and O₅, the posttests. The significance level was .05.

The second test was employed to determine whether the pretest influenced the scores. The Wilcoxon Matched-Pairs Signed-Ranks Test (Siegel 1956) was used with O₃ and O₄. The significance level was .05. Since it was determined that the pretest did not influence the scores, O₁

versus O_2 could be tested with some confidence that the independent variable is the reason for change.

The third test again utilized the Wilcoxon Matched-Pairs Signed-Ranks Test. Sample O_1 versus sample O_2 was tested. A significant difference in the scores at the .05 level would indicate that the class on sexuality in the aging changed student attitudes.

Summary

After a description of the research setting and the sample population, the rationale and procedure for the development of a testing instrument was discussed. Scoring of the responses was cited and the methods for analyzing the resulting scores were included in this chapter.

CHAPTER IV
ANALYSIS OF DATA

CHAPTER IV

ANALYSIS OF DATA

Introduction

This study was carried out to determine if a three hour class concerned with sexuality in the aging would produce in baccalaureate student nurses a change in attitude toward the sexual needs of the elderly. The data was gathered utilizing an experimental group and two control groups. Analysis of the data is presented in this chapter.

Influences of Demographic Variables

Of the eighty-six students who participated in the study, eighty were female and six were male. The split in white versus non-white students was exactly the same, eighty white students and six non-white students. Because of the imbalance of both of these demographic variables, no attempt was made to correlate them with the mean scores of either the pretests or the posttests. Therefore they are not included in the demographic tables.

In using the three-group design in this study, the students in Group III received only the posttest. Therefore there are no pretest scores available for them. The pretest scores presented in table 2 are the combined scores of

TABLE 2

MEAN SCORES OF PRETESTS OF GROUPS I AND II ARRANGED
TO PLACE FOCUS ON SEVERAL POTENTIALLY INFLUENCING
VARIABLES (N = 50; HIGHEST POSSIBLE SCORE = 100)

Variable		Mean Score
<u>Age:</u>		
17-20	(N = 17)	77.12
21-25	(N = 23)	76.78
26-30	(N = 4)	73.50
31-35	(N = 2)	84.00
36 or over	(N = 4)	79.00
<u>Marital Status:</u>		
Single	(N = 36)	73.97
Married	(N = 13)	74.00
Widowed	(N = 0)	. . .
Divorced	(N = 1)	72.00
<u>Religion:</u>		
Protestant	(N = 29)	76.31
Catholic	(N = 13)	76.69
Jewish	(N = 2)	92.50
Other	(N = 6)	78.33
<u>Current Religious Participation:</u>		
Non-Active	(N = 19)	81.21
Moderately Active	(N = 26)	76.27
Very Active	(N = 5)	67.80
<u>Participation in Sex Education</u>		
<u>Classes or Seminars:</u>		
College Level	(N = 21)	77.81
High School Level	(N = 9)	74.56
None	(N = 20)	78.00

Group I, the experimental group, and Group II, the control group which did not receive the independent variable, the class on sexuality in the aging.

In table 2 the demographic variables of age, marital status, and religion do not appear to have influenced the pretest scores. However there is approximately a six point difference in the attitudes of students who have no current religious activity and students who are moderately active in their religious participation. The former group of students demonstrate more positive attitudes toward sexuality in the aging. It is also interesting to note that with an almost equal number of scores in the group, students who received no sex education classes had a slightly higher score than those who had participated in college level sex education classes or seminars.

In reviewing the mean scores it should be noted that very small Ns reflect the scores of only a few students, and are generally considered unreliable in making comparisons with large Ns which reflect the scores of many more students (Spence et al. 1968, p. 108).

Another result of the three-group design of the study is the fact that one control group, Group III, also received the independent variable, the class on sexuality in the aging. In presenting the demographic data for the

posttest groups, Group I, the experimental group and Group III are combined.

The posttest scores as seen in table 3 demonstrate that students in the seventeen to twenty age range scored approximately three points higher than those students who were twenty-one to twenty-five years of age. Single students were five points higher than married ones. Catholic students had a mean score which was slightly more than three points higher than the Protestant nursing students. As in the pretest group, students who claimed less religious activity rated higher in their positive attitudes toward sexuality in the aging. Finally, the students who received a college level sex education class scored about two points higher than those students who had no similar classes, a reversal from the position of the pretest scores.

In examining the tables, it is important to remember that the posttest and pretest scores reflect different combinations of groups and therefore they are not matched or paired scores.

Testing the Posttest Scores

The Kruskal-Wallis One-Way Analysis of Variance by Ranks (Siegel 1956) was used to determine whether the posttest scores of the three groups demonstrated genuine population differences as a result of the independent

TABLE 3

MEAN SCORES OF POSTTESTS OF GROUPS I AND III ARRANGED
TO PLACE FOCUS ON SEVERAL POTENTIALLY INFLUENCING
VARIABLES (N = 63; HIGHEST POSSIBLE SCORE = 100)

Variable		Mean Score
<u>Age:</u>		
17-20	(N = 20)	87.50
21-25	(N = 34)	84.35
26-30	(N = 4)	96.75
31-35	(N = 3)	80.33
36 or over	(N = 2)	94.50
<u>Marital Status:</u>		
Single	(N = 41)	86.24
Married	(N = 19)	81.26
Widowed	(N = 1)	91.00
Divorced	(N = 2)	88.00
<u>Religion:</u>		
Protestant	(N = 38)	85.39
Catholic	(N = 16)	88.69
Jewish	(N = 2)	84.00
Other	(N = 7)	86.14
<u>Current Religious Participation:</u>		
Non-Active	(N = 30)	92.33
Moderately Active	(N = 23)	85.61
Very Active	(N = 10)	79.40
<u>Participation in Sex Education</u>		
<u>Classes or Seminars:</u>		
College Level	(N = 33)	87.33
High School Level	(N = 7)	84.29
None	(N = 23)	85.35

variable, the class on sexuality in the aging, or whether the differences seen represent chance variations such as may be seen among random samples in the same population. This test was selected because it allows one to compare any number of independent groups and as a nonparametric test, it is appropriate for testing qualitative data.

The initial step in utilizing this test was to pool the three groups. The total group of scores was arranged in order, and the smallest score was assigned a rank of 1, the next smallest a rank of 2 and so forth. Ties were handled in the usual manner by assigning to each tied score the average of the ranks the ties jointly occupy (table 4).

If each of the samples came from the same population, then each of the sum of the ranks should be equal except for sampling error. The null hypothesis that there is no difference between the average posttest scores of the three groups of baccalaureate student nurses is tested by computing a statistic, H (Siegel, p. 185). This statistic is the calculated measure of the extent to which the three groups differ from each other allowing for what would occur if chance alone were operating. In the Kruskal-Wallis test, the null hypothesis is that the observed sums of the ranks, corrected for the size of the sample populations (N_s), will be very close to equal. This would produce a low value of H . A large value of H indicates that some of the groups

tested contain a disproportionate number of lower ranks, and other groups contain a disproportionate number of higher ranks. Therefore, the sums of ranks would differ widely, H would be a large number, and the probability of the sample being drawn from the same population would be low.

Because so many ties occurred in the posttest scores of the three groups, Formula 8.3 (appendix D) which corrects for ties was used. The significance level for accepting the null hypothesis was $p = .05$. N equals 86, the total number of students in the study.

The formula corrected for ties produced an H equal to 7.55. Since the largest H consistent with accepting the null hypothesis at the .05 level of significance is H equals 5.99 (Siegel 1956, p. 249), the null hypothesis was rejected. Therefore, the hypothesis that there was a significant difference in the posttest scores of the three groups can be accepted.

Determining the Influence of the Pretest

The Wilcoxon Matched-Pairs Signed-Ranks Test (Siegel 1956) was employed to determine the influence of the pretest on the posttest scores of Group II, the control group which was posttested without exposure to the independent variable, the class on sexuality in the aging. This test was chosen because the study employs two related samples, i.e., the

students are matched to themselves, and it yields difference scores that may be ranked in order of absolute magnitude.

The procedure is initiated by obtaining the difference between the paired scores for each subject. Any pair of scores for which the difference is zero is discarded. The remaining differences are ranked in order of absolute magnitude, assigning the rank of 1 to the smallest difference, 2 to the next smallest and so forth. Ties are handled by assigning to each tied difference score the average of the ranks the ties jointly occupy. Finally, to each of these absolute ranks is given the sign (+ or -) of the associated difference score, giving us a set of signed ranks. The rank with the less frequent sign is summed to determine the statistic T. These steps in the Wilcoxon Test for Group II are illustrated in table 5.

The statistic, T, is a measure of the extent to which the paired scores differ from each other, allowing for what would occur if chance alone were operating. If the two matched samples showed no systematic difference, roughly half the paired scores would have positive signed ranks, and half the paired scores would have negative signed ranks. The sums of positive and negative ranks would be roughly equal. If a significant difference existed, one of the sums would be large and one of the sums would be small; the greater the difference, the smaller would be the lesser of the two sums.

TABLE 5

ATTITUDE SCORES OF GROUP II TOWARD
SEXUALITY IN THE AGING

Subject	Posttest Scores	Pretest Scores	Difference in Scores	Signed Rank of Difference	Rank with Less Frequent Sign
1	82	89	-7	-12	12
2	91	78	13	14.5	
3	89	73	16	16	
4	76	74	2	6.5	
5	99	91	8	13	
6	93	75	18	17	
7	78	74	4	9.5	
8	74	74	0	. . .	
9	72	72	0	. . .	
10	72	72	0	. . .	
11	76	78	-2	-6.5	6.5
12	74	74	0	. . .	
13	75	74	1	3	
14	78	82	-4	-9.5	9.5
15	69	69	0	. . .	
16	90	77	13	14.5	
17	77	72	5	11	
18	88	87	1	3	
19	70	70	0	. . .	
20	73	72	1	3	
21	77	76	1	3	
22	76	75	1	3	
23	82	85	-3	-8	<u>8</u>

T = 36

The smaller of the signed ranks is designated T. Therefore, the smaller T is, the more likely it is that the samples differ significantly. This computed T can then be compared with the value of T which occurred at the .05 level of significance, when the two distributions came from the same population.

The significance level for this test was $p = .05$. N equals the number of pairs, 23, minus any pairs whose difference is zero, i.e., 6. Therefore $N = 17$. For this test, the smaller of the sums of like-signed ranks is equal to 36. The region of rejection at the .05 level of significance is a T equal to 35 or smaller (Siegel 1956, p. 254). Therefore, the null hypothesis that exposure to the pretest did not influence the posttest scores was accepted.

Determining the Difference Between the Experimental Pretest and Posttest Scores

The Wilcoxon Matched-Pairs Signed-Ranks Test was again chosen because two related samples were being tested. The N for this test was the number of original pairs in the group, 27, minus the 2 pairs which have a difference of zero. Therefore, $N = 25$. For an N of 25, a T of 13, the sum of the less frequent signed ranks, necessitates the rejection of the null hypothesis at both the .05 ($T = 89$) and .01 ($T = 68$) level of significance (Siegel 1956, p. 254).

The hypothesis of the study that there will be no difference in attitudes toward the sexual aspects of aging between baccalaureate student nurses who receive a class on sexuality in the aging, and those students who do not receive the class, was rejected. There was significant change in the attitudes of those students who received the class on sexuality in the aging. Table 6 shows the pretest and posttest attitude scores of Group I, the experimental group, as well as the computation of the statistic T. Examination of table 6 indicates that the attitudinal changes which the students demonstrated were in a positive direction.

Summary

Analysis of the data utilized three nonparametric tests. The Kruskal-Wallis One-Way Analysis of Variance by Ranks was used to test the posttest scores of the two control and one experimental groups for significant differences. A significant difference between the groups was shown at the .05 level. The Wilcoxon Matched-Pairs Signed-Ranks Test was used to determine if the pretest influenced the scores. The pretest and posttest scores of the control group, Group II, were tested, and the null hypothesis was accepted.

The Wilcoxon Matched-Pairs Signed-Ranks Test was also used to determine significant differences between the pretest and posttest scores of Group I, the experimental group.

TABLE 6

ATTITUDE SCORES OF GROUP I TOWARD
SEXUALITY IN THE AGING

Subject	Posttest Scores	Pretest Scores	Difference in Scores	Signed Rank of Difference	Rank with Less Frequent Sign
1	83	75	8	12.5	
2	75	73	2	3	
3	73	62	11	16	
4	75	73	2	3	
5	90	87	3	7	
6	97	82	15	17.5	
7	91	94	-3	-7	7
8	97	94	3	7	
9	68	52	16	20	
10	73	67	6	10	
11	98	60	38	25	
12	85	78	7	11	
13	90	82	8	12.5	
14	98	73	25	24	
15	87	87	0	. . .	
16	92	94	-2	-3	3
17	79	79	0	. . .	
18	73	64	9	14	
19	98	78	20	22.5	
20	73	71	2	3	
21	90	86	4	9	
22	99	79	20	22.5	
23	94	96	-2	-3	3
24	93	83	10	15	
25	93	78	15	17.5	
26	90	74	16	20	
27	97	81	16	20	—

T = 13

Significant differences in the scores were demonstrated at the .05 and .01 level. Therefore, the hypothesis of the study, i.e., there will be no difference in attitudes toward sexual aspects of aging between baccalaureate student nurses who receive a class on sexuality in the aging and those students who do not receive the class, was rejected. The Wilcoxon Test demonstrated significant differences in attitude in those students who were exposed to the learning situation.

CHAPTER V
SUMMARY, CONCLUSIONS, IMPLICATIONS,
AND RECOMMENDATIONS

CHAPTER V

SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Introduction

This study was carried out to determine if a three hour class concerned with sexuality in the aging would produce in baccalaureate student nurses a change in attitude toward the sexual needs of the elderly. In this chapter there will be presented a review of the study; an exposition of the possibilities that can be derived from the study; the identification of significant elements derived from the study results and directed to the appropriate audience; and finally, suggestions for further study.

Summary

This study was conducted to determine attitudes of baccalaureate student nurses toward sexuality in the aging. It was established that the enhancement of the lengthening human life must be accomplished through satisfaction of psychological needs as well as physical ones. The importance of sexuality in the lives of the aging has been cited in the nursing literature, and the aspects of sexuality in aging is being introduced in some nursing curricula. Evaluation of

the effectiveness of classes concerned with the sexual needs and abilities of the elderly has not been reported.

The purpose of this study was to determine if a three hour class concerned with sexuality in the aging would produce in baccalaureate student nurses a change in attitude toward the sexual needs of the elderly. To determine this, a testing instrument was developed based on the attitudinal content of the class, "Sexuality in the Aging." This instrument was a paper and pencil test consisting of twenty-five statements designed to measure attitudes toward sexuality in the aging. The responses included "strongly agree," "agree," "disagree," and "strongly disagree." A Likert-type scale was used to measure responses. Prior to use, the attitudinal statements of the testing instrument were examined by five nurse-educators. The testing instrument was then pre-tested by thirty-one baccalaureate student nurses at a university other than that of the sample population.

The sample for this experimental, explanatory study was a group of eighty-six baccalaureate nursing students. The students were randomly assigned to one of three class divisions and these divisions were then randomly assigned to the experimental group or one of two control groups. Group I, the experimental group, received the independent variable, the class on sexuality in the aging. This group was tested with the newly developed instrument before and

after the class. Group II was a control group which received both a pretest and posttest, but did not receive the class. Group III was a control group which received the class and a posttest, but did not receive a pretest.

Analysis of the data was accomplished with the use of three nonparametric tests. The Kruskal-Wallis One-Way Analysis of Variance by Ranks was used to compare the posttest scores to determine significant differences. A significant difference was determined at the .05 level. The Wilcoxon Matched-Pairs Signed-Ranks Test was used to determine whether the pretest influenced the scores. The null hypothesis was accepted at the .05 level of significance, thus establishing that the pretest did not influence the scores. The Wilcoxon Matched-Pairs Signed-Ranks Test was again used to determine significant differences between the pretest scores and the posttest scores of Group I. This test showed a significant difference at the .01 level, which demonstrated that the class on sexuality in the aging had caused a positive change in the attitudes of the experimental group. Therefore the hypothesis of the study, i.e., there would be no differences between groups, was rejected.

Conclusions

This study was conducted to determine the effectiveness of a class on sexuality in the aging. It was

hypothesized that there would be no difference in attitudes toward the sexual needs of the aging between student nurses who received a class on sexuality in the aging and those students who did not receive the class. This hypothesis was rejected.

The results of this study indicate that knowledge about sexuality in the aging presented under optimum learning conditions can change the attitudes of student nurses toward the sexual needs of the elderly in a positive direction. Positive attitude change accomplished in this highly stereotyped area should encourage the use of the educational process to attempt desirable changes in other areas which are surrounded by negative attitudes.

Implications

Implications for Nursing Practice

With the increase of the human life-span, hospitals and nursing home facilities, especially those offering long-term care, are admitting more elderly people. For many, these facilities will be their homes for the rest of their lives. In addition to nursing care, the elderly should be given the compassion and respect which their years have earned them. Concern for their privacy and psychological needs should be present in those who provide their care.

To care for and understand the aging individual as a complete person, it is necessary to be aware of his sexual needs and desires. Far too often, these are deemed non-existent. Negative attitudes toward the aging abound, and the sexual myths and stereotypes directed toward this age group are particularly unkind. This is seen in nursing practice as well as in many other societal activities. Results of this study show that positive attitudes toward sexuality in the aging can be developed through education.

It is vital and appropriate that the caring profession of nursing should implement this change. In-service education programs concerned with sexuality in the aging should be given for all nursing personnel, especially those who provide primary care. Nursing supervisors should serve as role-models in demonstrating positive attitudes toward the sexual needs of the elderly. Therefore, intensive classes are recommended as the initial step towards attitude change. The nurse-educator giving the classes should be one who demonstrates care for and knowledge about sexuality in the aging, and who is congruent in modeling her positive attitudes.

Articles about the importance of sexuality in the aging are beginning to appear in the nursing literature and elsewhere. These articles should be made available to the

nursing staff. Reprints could be distributed so that nursing personnel on all units and on all shifts of work have access to them.

Such educational programs are of importance in all medical facilities, but especially in those where many of the patients are over sixty-five years of age.

Implications for Nursing Education

In order to prepare nurses who are sensitive to all the needs of the patient at all ages, nursing education must be directed to the neglected area of sexuality in the aging. Education can help destroy the myths and stereotypes which are the basis of most negative attitudes. Positive attitudes toward the sexual needs of the elderly can be developed in a climate of nonjudgment and intergenerational acceptance in which the nurse-educator demonstrates care for and knowledge about the sexuality of those over sixty-five.

College level courses on human sexuality have given little attention to the aging. Therefore it is important that all nursing students, prior to or concurrent with their gerontology practicum, receive a class on sexuality in the aging.

Consideration should also be given to the nursing faculty's attitudes toward and knowledge about the sexual needs of the elderly. Faculty in-service education may be

an appropriate vehicle for educating these nurses and promoting the positive attitudes which must be developed in themselves before they can be successfully imparted to their students.

Implications for Society

The literature has cited ageism as the stereotyping of and discrimination against old people because they are old. It differs from racism and sexism because, although a change of skin color or gender is unlikely, we will in all likelihood become old. If we ignore the negative attitudes present in all ages and levels of society toward aging, we are encouraging a hatred of the old people whom we are likely to become, i.e., self-hatred. This study has shown that attitudes can be changed in a positive direction through education. It is essential to the psychological health of the old (and therefore to ourselves as potential elderly) that we as members of society initiate such positive change. Education can begin by teaching recognition of and respect for the sexual needs of the elderly. If positive attitudes are fostered in this area of sensitivity, empathy should spread to other concepts of aging.

Recommendations

Based on the findings of this study the following research recommendations are offered:

1. Further research utilizing the experimental design and testing instrument of this study, but which also tests student attitudes after an additional year of nursing practice, should be initiated. In addition to further establishing the validity and reliability of the testing instrument, such testing would determine the permanence of the attitude change, i.e., has a true attitude change occurred.

2. Similar studies should be done in which the sample consists of one of the following groups:

- a. Nurses who are caring for the elderly on a full-time basis.
- b. Middle-aged (forty-five to sixty-four) men and women not employed in the health-care field.
- c. Men and women who are past sixty-five years of age.

3. Further investigation of the attitudes of nurses toward sexuality in the aging through observation, process recording, and interviewing should be undertaken.

APPENDICES

APPENDIX A

A TEST ON ATTITUDES TOWARD SEXUALITY IN THE AGING

Birth Date or I.D.# _____

General Instructions:

In processing this material, personal identification is not desired. Therefore, please do not write your name on this sheet.

Please use your birth date or student I.D. number so that the information may be matched for pre- and posttest comparisons.

(If there is some concern about using these numbers, make up your own unique number and retain the key.)

Background Information:

This information will be treated as strictly confidential and will be used for research purposes only. In no way will it be used to reveal anyone's identity.

Please circle the correct response.

1) Age:

- | | |
|----------|---------------|
| A) 17-20 | D) 31-35 |
| B) 21-25 | E) 36 or over |
| C) 26-30 | |

2) Sex:

- | | |
|---------|-----------|
| A) Male | B) Female |
|---------|-----------|

3) Race:

- | | |
|----------|--------------|
| A) White | B) Non-white |
|----------|--------------|

4) Marital Status:

- | | |
|------------|-------------|
| A) Married | C) Widowed |
| B) Single | D) Divorced |

5) Religion:

- A) Catholic
- B) Protestant
- C) Jewish
- D) Other
- E) None

6) Current religious participation:

- A) Very active
- B) Moderately active
- C) Non-active

7) Participation in sex education classes or seminars:

- A) None
- B) High school level
- C) College level

ATTITUDINAL STATEMENTS ABOUT SEXUALITY IN THE AGING

Please read each statement carefully and circle the answer which you believe is most appropriate.

- 1) HUMAN SEXUALITY DECREASES RAPIDLY AFTER THE AGE OF SIXTY-FIVE.

Strongly Agree	Agree	Disagree	Strongly Disagree
(1)*	(2)*	(3)*	(4)*

- 2) WHEN DISABILITY OCCURS, OLDER PEOPLE SHOULD BE ABLE TO USE NEW WAYS OF MEETING THEIR SEXUAL NEEDS.

Strongly Agree	Agree	Disagree	Strongly Disagree
(4)	(3)	(2)	(1)

- 3) NURSING HOMES SHOULD DISCOURAGE OLDER, UNMARRIED COUPLES WHO WISH TO HAVE SEXUAL INTERCOURSE.

Strongly Agree	Agree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)

- 4) A SEXUALLY POTENT MALE OF SIXTY-FIVE CAN BE SEXUALLY PLEASING TO A WOMAN OF FORTY.

Strongly Agree	Agree	Disagree	Strongly Disagree
(4)	(3)	(2)	(1)

- 5) COUNSELING, FOR OLDER COUPLES WITH SEXUAL PROBLEMS, SHOULD NOT BE ENCOURAGED AS IT USUALLY FAILS TO HELP THEM.

Strongly Agree	Agree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)

*These numbers indicate the scoring of responses and were not present on the testing instrument at the time of testing.

- 6) THE LOVE OF AN OLD PERSON FOR HIS GRANDCHILD IS AN ASPECT OF HIS SEXUALITY.

Strongly Agree	Agree	Disagree	Strongly Disagree
(4)	(3)	(2)	(1)

- 7) IT IS POSSIBLE FOR THE ELDERLY WHO DISCONTINUE SEXUAL INTERCOURSE TO HAVE SATISFYING LIVES.

Strongly Agree	Agree	Disagree	Strongly Disagree
(4)	(3)	(2)	(1)

- 8) A HEALTHY AND SEXUALLY ACTIVE FEMALE WHO HAS REACHED EIGHTY SHOULD NOT CONTINUE SEXUAL INTERCOURSE.

Strongly Agree	Agree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)

- 9) THE AGING MAN DOES NOT LOSE HIS SEXUALITY IF HE BECOMES PERMANENTLY IMPOTENT.

Strongly Agree	Agree	Disagree	Strongly Disagree
(4)	(3)	(2)	(1)

- 10) THE HOSPITALIZED, OLDER PERSON SHOULD BE ALLOWED TO MASTURBATE IN THE PRIVACY OF HIS ROOM, IF HE SO DESIRES.

Strongly Agree	Agree	Disagree	Strongly Disagree
(4)	(3)	(2)	(1)

- 11) SEXUAL DESIRE OCCURRING IN OLDER WIDOWS IS ABNORMAL.

Strongly Agree	Agree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)

- 12) AN OLD MAN WHO EXPERIENCES SEXUAL AROUSAL AT THE SIGHT OF A VOLUPTUOUS GIRL IN A BIKINI IS A "DIRTY" OLD MAN.

Strongly Agree	Agree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)

- 13) AFTER MENOPAUSE, WOMEN SHOULD NOT REMAIN SEXUALLY ACTIVE BECAUSE THE VAGINAL "JUICES" DRY UP AND INTERCOURSE IS PAINFUL.

Strongly Agree	Agree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)

- 14) MASTURBATION, IF ACCEPTABLE TO THE OLDER WOMAN, IS A HEALTHY WAY OF RELEASING SEXUAL TENSION.

Strongly Agree	Agree	Disagree	Strongly Disagree
(4)	(3)	(2)	(1)

- 15) YOUNGER WOMEN CAN BEST SATISFY THE SEXUAL NEEDS OF THE AGING MALE.

Strongly Agree	Agree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)

- 16) NURSING HOMES SHOULD PERMIT PRIVACY FOR OLDER, MARRIED COUPLES WHO WISH TO HAVE SEXUAL INTERCOURSE.

Strongly Agree	Agree	Disagree	Strongly Disagree
(4)	(3)	(2)	(1)

- 17) SEXUAL INTERCOURSE IS NOT SATISFYING TO THE OLDER MALE UNLESS HE EJACULATES.

Strongly Agree	Agree	Disagree	Strongly Disagree
(1)	(2)	(3)	(4)

18) A SEXUALLY ACTIVE WOMAN OF SIXTY-FIVE CAN BE SEXUALLY PLEASING TO A MAN OF FORTY.

Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)
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19) THE READING OF EROTIC BOOKS IS NOT A HEALTHY PRACTICE FOR OLDER MEN.

Strongly Agree (1)	Agree (2)	Disagree (3)	Strongly Disagree (4)
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20) SEX ACTS OTHER THAN GENITAL INTERCOURSE, ARE UNHEALTHY FOR COUPLES WHO ARE PAST SIXTY-FIVE.

Strongly Agree (1)	Agree (2)	Disagree (3)	Strongly Disagree (4)
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21) INABILITY TO ATTAIN AN ERECTION SHOULD BE ACCEPTED BY THE AGING MALE AS IRREVERSIBLE.

Strongly Agree (1)	Agree (2)	Disagree (3)	Strongly Disagree (4)
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22) THE SEXUALITY OF THE FEMALE DOES NOT DWINDLE TO A NEUTER STATE AFTER MENOPAUSE.

Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)
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23) LENGTHY SEXUAL FOREPLAY IS AN UNHEALTHY PRACTICE FOR OLDER COUPLES.

Strongly Agree (1)	Agree (2)	Disagree (3)	Strongly Disagree (4)
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24) THE POSTMENOPAUSAL WOMAN IN A SEXUALLY ACTIVE MARRIAGE,
CAN CONTINUE TO HAVE ORGASMS.

Strongly Agree	Agree	Disagree	Strongly Disagree
(4)	(3)	(2)	(1)

25) A WOMAN PAST SIXTY-FIVE SHOULD USE ANY SEXUAL POSITION
WHICH IS PLEASING TO HERSELF AND HER PARTNER.

Strongly Agree	Agree	Disagree	Strongly Disagree
(4)	(3)	(2)	(1)

APPENDIX B

STUDENT PERMISSION FORM

I, the undersigned, agree to participate in the pre and post testing (pencil and paper test) for the study:

"Attitudes of Baccalaureate Student Nurses
Toward Sexuality in the Aging."

It is my understanding that no personal identification is involved in the testing, and that the test results will not be used to determine my class grades.

Signature _____

Date _____

APPENDIX C

LETTER OF REQUEST SENT TO NURSE-EDUCATORS

August 17th, 1975

Dear _____,

The enclosed attitudinal statements (with any corrections and/or deletions) will constitute the testing instrument for my master's thesis. My hypothesis states that, "Student nurses who are exposed to a three hour class on sexuality in the aging will have more positive attitudes toward the sexual aspects of aging than those students who are not exposed to this learning situation."

I am requesting five of you who have been exposed to the class material in a graduate or undergraduate class (taught by me) to help me determine clarity and content validity and to note any researcher bias in the statements.

You need not remember the statements per se, but they should reflect the basic material which I presented.

Please answer the specific questions with a checked "yes" or "no" and make any comments in the space beneath the statements.

Time is vital since I still have to do a pretest (test-retest) on a comparison group of students. Please use the enclosed envelope for returning the material.

I really do appreciate your time and interest and will be delighted to return it in kind.

Thanks so much.

Sincerely,



Lee Kerwin

APPENDIX D

THE KRUSKAL-WALLIS ONE-WAY ANALYSIS OF VARIANCE BY RANKS
 FORMULA 8.3-THE KRUSKAL-WALLIS TEST CORRECTED FOR TIES

$$H = \frac{\frac{12}{N(N+1)} \sum_{j=1}^k \frac{R_j^2}{n_j} - 3(N+1)}{1 - \frac{\sum T}{N^3 - N}}$$

Where k = the number of samples.

n_j = the number of cases in the j th (a given) sample.

$N = n_j$, the number of cases in all samples combined.

R_j = the sum of the ranks in the j th (given) sample.

$\sum_{j=1}^k$ directs one to sum over the k samples (columns).

$T = t^3 - t$ (when t is the number of tied observations in a tied group of scores).

$\sum T$ directs one to sum over all groups of ties.

(Siegel 1956, pp. 185-188)

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