2001

Rehabilitation Nurses' Attitudes and Behaviors Related to Sexuality of Rehabilitation Patients

Renae Boss Potts
Grand Valley State University

REHABILITATION NURSES' ATTITUDES AND BEHAVIORS RELATED TO SEXUALITY OF REHABILITATION PATIENTS

By

Renae Boss Potts

A THESIS

Submitted to
Grand Valley State University
in partial fulfillment of the requirements for the
degree of

MASTER OF SCIENCE IN NURSING

Kirkhof School of Nursing

2001

Thesis Committee Members:

Patricia Underwood, PhD., R.N.

Richard Paschke, PhD.

Kay Reick, MSN, R.N.

ABSTRACT

REHABILITATION NURSES' ATTITUDES AND BEHAVIORS RELATED TO SEXUALITY OF REHABILITATION PATIENTS

By

Renae Boss Potts

Sexuality is intrinsic to the nature of human beings. If nurses are to practice holistically, issues concerning sexuality are relevant to nursing practice. The attitudes and behaviors that rehabilitation nurses express regarding the care of rehabilitation patients were explored in this descriptive study. One hundred and one members of the Association of Rehabilitation Nurses (ARN) responded to the Williams - Wilson Sexuality Survey (WWSS). The possible range of scores on the attitude scale was 11 – 66. The actual results ranged from 21 to 65, with a mean of 48 and a standard deviation of 10. The higher the attitudinal scores the more positive the attitude of the nurse regarding sexuality of rehabilitation patients. A total possible range on the behavior scale was 0 – 9. The survey results showed an actual range of 0-9, with a mean score of 3.0 and a standard deviation of 2.5. This means that on average, nurses only perform three out of the nine behaviors described. The analysis of the relationship between the attitude and behavior subscales showed a significant positive relationship between total scores on the attitude and behavior subscales ($r=.59$, $p<.001$). This indicates that the more positive the attitude of the nurses towards sexuality of rehabilitation patients, the more likely they would demonstrate positive behaviors for patients in the area of sexuality.

DEDICATION

I dedicate this work to my wonderful family who have encouraged and supported me all along this journey. Thank you to my parents Ron and Myra Boss who taught me perseverance and the satisfaction of doing my personal best. Thank you to my three beautiful children, Leandra, Landon, and Karlina, who bring me joy and laughter every day. Thank you to my husband Bill, who is my rock, my Gibraltar.

Acknowledgments

Patricia Underwood, PhD, RN, is an extraordinary nurse and educator. Without her unfailing guidance and support this work would never have been completed. To Pat Underwood I give my heartfelt gratitude. I also greatly appreciate the thoughtful critique encouragement of my thesis committee members Richard Paschke, PhD. and Kay Reick, MSN, R.N. Organizing the framework, completing the research and writing this thesis was a very long journey. The patience, encouragement, and scholarly excellence of these individuals has taught me more than I can express.

Table of Contents

List of Tables

List of Appendices

CHAPTER ONE

INTRODUCTION

Abraham Maslow offers a theory of human motivation based on a hierarchy of needs that must be satisfied. Sexuality is documented as a basic human need, and is also a part of the higher level needs of security, love and belonging, esteem, and self-actualization (Maslow, 1954). Sexuality is intrinsic to our very beings. It is far more than simply the act of intercourse. Sexuality is fundamental, integral and universal in the development of full human potential. A sexual relationship is often an integral part of intimacy (Herson, Hart, Gordon, & Rintala, 1999; Medlar & Medlar, 1990). Hogan writes that sexuality is a biological act that involves the build up of both autonomic nervous system and muscle activity that culminates in orgasm, but also so much more (1985).

Sexuality includes each individual's sense of femininity and masculinity as it influences his/her self-perception and interpersonal relationships. It is constantly evolving as the individual grows and develops (Medlar & Medlar, 1990; Payne, 1976). Webb offers a broad definition of sexuality which includes biological, psychological, and social concepts. She notes that the biological aspects include physiological gender, coitus, and the biological aspect of reproduction. The psychosexual aspects include self-concept, self-esteem, body image, gender identity or self identity as a man or woman, sexual preference, and gender-related social roles such as parent, worker, offspring and sibling (Webb, 1988).

If we are to see humans as holistic beings, we may not disregard that all-pervasive aspect of their sexuality. Being human encompasses the physical, psychological, social, spiritual, and sexual (Bartscher, 1983).

Brink (1987) writes that sexual behavior is a product or one's biological sex modified by one's culture. In human beings more than in any other species, sexuality is structured and patterned through learning. Sexuality may be expressed in a broad range of activities, from conversation to intercourse, through which the individual derives sexual pleasure. Sexuality has many aspects including self-esteem, relationships, and sexual activities (Heiney, 1989; Medlar & Medlar, 1990).

Rieve adds "Although the act of coitus is still focused upon as the yardstick for measuring sexual performance, sexuality is far broader in its scope." Sexuality is the blending of sex drive, sex acts and all the facets of character touched by communication and relationship patterns. "This learned process occurs at many levels and can range from conversation, shared activities and interests, to various forms of affection, including sexual intercourse. It is rooted in the human need to relate to others, to receive and share pleasure, and to love and be loved" (1989, p. 268).

It is clear that sexuality is an integral aspect of each individual. This poses a special area of concern then for those people interfacing with the health care environment. Sexuality is inevitably affected by their health and subsequent relationships with health care providers. Often when people are admitted into the health care system, they are stripped of their sexuality and are viewed merely as a diagnosis and a hospital number. Patients are ripped from situations in which they are free to express their sexuality and are forced to quietly bide their time in a sterile environment. Privacy is essentially

nonexistent. Relationships with significant others are altered. Physical sharing and expression are limited. Roles of masculinity and femininity are ignored. Self-esteem may be reduced. Basic needs of safety and belonging may go unfulfilled. Self-concept and body image may be drastically altered by disease, trauma, or medical intervention.

Numerous altered health states have serious threats to the individual's sexuality. (i.e.: cancer, arthritis, chronic pain, pelvic surgery, cardiac or pulmonary dysfunction, brain injury, spinal cord injury, stroke, diabetes, substance abuse, etc...). Clients' responses to their illnesses strongly affect their responses to alterations in sexuality. It follows then, if we define nursing as the diagnosis and treatment of human responses to illness, nurses need to concern themselves with the full array of responses. Consequently, nurses must be involved in the counseling and education of clients with regard to their sexuality.

Nurses are educated to critically assess clients from a holistic perspective. This includes not only physiological, medical, psychological, social, spiritual, but also sexuality

as this encompasses all other aspects of the human being. Among health care providers, nurses generally spend the most time with patients and are able to build a rapport leading to patient trust and confidence. The nurse is frequently in close intimate contact with patients (Herson, Hart, Gordon, & Rintala, 1999). She is also uniquely prepared in areas of physiology and communication skills. Because of nurses' assessment skills, they may be able to identify a problem even if patients are unable to initiate questions or concerns themselves.

Nurses often fail to fully meet the needs of their clients in the area of sexuality (Heiney, 1989; Herson, Hart, Gordon, & Rintala, 1999; Medlar & Medlar, 1990; Payne, 1976; Shah, 1991; Webb, 1988). Many nurses do not have the expert knowledge that is required to deal with the effects of various diseases on sexuality. Also, many nurses feel uncomfortable discussing such a sensitive subject. Some nurses may not recognize sexuality counseling and education as a fundamental component of their role.

Purpose

This study will describe nurses' attitudes and behaviors in response to human sexuality issues of patients. The results may be used as baseline data for improving academic preparation of nursing students and also continuing education for rehabilitation nurses. By understanding nurses' current attitudes toward patient sexuality, efforts may be focused on expanding and maximizing these attitudes to better care for patients in the realm of sexuality.

CHAPTER TWO

CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW

Conceptual Framework

For the purpose of this study, Dorothy Johnson's behavioral systems model will be used for a conceptual framework. Her model was chosen because of the direct reference to human sexuality as a basic tenant of her model. Johnson (1990) proposes that sexuality is an important aspect of all people and without appropriate attention, development and balance in that area of their life, they will not achieve an optimal level of wellness.

Johnson defines person as a behavioral system composed of interrelated subsystems (Wilkerson & Loveland-Cherry, 1996). She focuses on the behavior of people as a whole - on what they do, why, and on the consequences of their behavior (Fawcett, 1995). Johnson focuses on observable characteristics and actions that make up social behavior, specifically behavior that has major adaptive significance (Johnson,1990). She believes that all patterned, repetitive, purposeful ways of behaving that characterize people's lives form an organized and integrated whole or system (Johnson,1990).

Parts of the individuals total system develop to provide unique functions for the system as a whole. Johnson (1990) identified seven subsystems that include the attachment or affiliate, dependency, ingestive, eliminative, sexual, aggressive and achievement subsystems. Each behavioral subsystem is made up of a set of behavioral responses, tendencies, or action systems that share a common goal or drive (Johnson,

1990). The subsystems are linked and open; a fluctuation in any of the subsystems is likely to have an effect on the others (Johnson, 1990).

Each subsystem has its own structure and function. Subsystem structure is made up of a goal, a set, choices, and the action or behavior. The goal is defined as the ultimate consequences of the behavior. The impetus for the goal is an individual's basic drives (Grubbs, 1980). Set is defined as an individual's tendency or predisposition to behave in a certain manner in a specific situation (Grubbs,1980). Choice is the realm of all possible behaviors a person sees himself able to utilize in a given situation (Grubbs,1980). Action refers to the observable behavior of a person (Grubbs,1980). Subsystem function is defined as the purposes of a particular behavior in relation to the whole system (Grubbs, 1980).

According to Johnson (1980,1990) the sexual subsystem serves dual functions of procreation and gratification. An individual also develops behavior related but not limited to gender identity, courting and mating. The development of this subsystem may be thwarted by poor role models, inadequate nurturance in this area or poor stimulation to grow and experiment in this aspect of life. There may be dominance of one of the other subsystems over the sexual subsystem thus causing stagnation or imbalance. This may be seen for example in people who are hospitalized and not allowed their customary level of privacy for intimacy with a significant other. Another example may be people who sustain disabling injuries that could decrease their body image or alter their sexual function. Concurrently, the sexual subsystem may be emphasized disproportionately to the other subsystems again causing disequilibrium in the behavioral system.

The goal of the behavioral system is balance and equilibrium. In order to achieve this, each subsystem requires protection from noxious influences, nurturance, and stimulation to enhance growth and prevent stagnation (Fawcett, 1995). If these functions are not available to the system, imbalance and disequilibrium result, leading to a need for nursing care. Nursing, by definition acts as an external regulatory force to assist people to return to a state of balance or equilibrium (Johnson, 1980, 1990). Nursing accomplishes this by attempting to fulfill the subsystems functional requirements or to change their structural requirements in a positive direction (Johnson, 1990). Nursing attempts to reduce stress and tension thereby promoting adaptation and stability (Wilkerson & Loveland-Cherry, 1996).

If nurses have a responsibility to assist people to return to a state of balance or equilibrium, then they must provide assessment, diagnosis, intervention, and evaluation for those with alterations in their sexual subsystem. The literature shows that nurses often fall short of this ideal (Gamel, Hengeveld, Davis & Van Der Tweel, 1995; Kautz, Dickey & Stevens, 1990; Herson, Hart, Gordon & Rintala, 1999; Lewis & Bor, 1994; Medlar & Medlar, 1990; Richards, Tepper, Whipple & Komisaruk, 1997; Shah, 1991; Wall-Haas, 1991; Waterhouse & Metcalfe, 1991; Wilson & Williams, 1988). Nurses frequently demonstrate inadequate academic preparation, insufficient knowledge and discomfort with the subject of sexuality. Nurses often lack the skills to create a meaningful care plan to deal with the compromised sexual subsystem. Nurses' attention is often focused on achieving stability and balance in the more physiological subsystems (e.g. ingestive, eliminative, or dependency subsystems) rather than looking at people's sexuality. Nurses may not recognize that the sexual subsystem is within the realm of the nursing domain

and it is their responsibility to attend to needs in this area (Shuman, 1987). Often the environment in which the nurse acts is not conducive to continuity of care, relationship building, or privacy that is beneficial to approaching such a sensitive subject. Also nurses' heavy workloads and demands to complete specific tasks consume so much of their day that little time is available to provide quality interventions for the sexual subsystem imbalance.

Sexuality is recognized as a vital aspect of people's behavioral system, that the sexual subsystem is within nursings' domain, and that often nurses are not adequately fulfilling their mission in the area of sexuality. Thus, it is the focus of this paper to explore nurses' attitudes and behaviors related to promoting balance and optimizing function of the sexual system.

Literature Review

Numerous theory papers have been published regarding sexuality and its implications for nursing practice. Sexuality has been discussed in relation to spinal cord injury, cerebral vascular accident, myocardial infarction, cancer, ostomies, female issues, and aging (Baggs & Karch, 1987; Donahue, 1995; Loehr, 1997; Newman, 1998; Richards, Tepper, Whipple, & Komisaruk, 1997; Williams, 1986; Wilson, 1988). There are a number of articles that discuss responsibilities of the professional nurse with regard to sexuality teaching and counseling (Kautz, 1990; Kuczynski, 1980; Lewis, 1994; Matocha, 1993; Quinn-Krach, 1988; Roy, 1983; Wall-Haas, 1991; Waterhouse, 1991; Webb, 1988; Wilson, 1988). Other articles review sexual self-esteem, sexual depression, and sexual-preoccupation (Donahue, 1995; Richards, Tepper, Whipple, & Komisaruk, 1997; Wall-Haas, 1991; Wilson, 1988). Specific information can be found related to culture and its effects on sexual norms and mores (Gamel, Hengeveld, Davis, Van Der Tweel, 1995; Loehr, 1997; Newman, 1998). Further, articles can be found that look at the academic preparation of health professionals to meet the needs of patients in regards to their sexuality (Kuczynski, 1980; Matocha, 1993; Quinn-Krach, 1988; Roy, 1983).

Research on nursing practice and sexuality often focuses on the level of knowledge and the attitudes held by nurses related to human sexuality. A number of studies explored potential barriers to nurses meeting specific hospital standards of care with regard to sexuality (Gamel, Hengeveld, Davis & Van Der Tweel, 1995; -Herson, Hart, Gordon &Rintala, 1999; Kautz, Dickey, Stevens, 1990).

A review of salient nursing research will be organized according to studies related to patient's views of the nurses' role, sexuality and specific disease processes. Current nursing practice related to human sexuality will also be included.

Patient's View of Nurses' Role

Waterhouse and Metcalfe (1991) completed a descriptive correlational study with the purpose of exploring the attitudes of healthy individuals toward nurses discussing sexual concerns with their patients. Nine variables were also examined for their influence on attitudes (age, sex, race, marital status, occupation, education, current importance of sexual activity, frequency of discussing sexual relationships with partner, and number of others with whom sexual concerns are discussed). The sample was made up of 73 healthy subjects randomly selected from current and retired employees at a large university. The Sexual Adjustment Questionnaire (SAQ) was developed in 1986. Data were collected using only Section A of the SAQ, which assesses current sexual attitudes and functioning. It also asks, "Do you believe nurses should discuss sexual concerns with their patients?" The results showed that 26 % felt that nurses should "always" or "almost always" discuss sexual concerns with their patients. Sixty six percent felt nurses should "sometimes" discuss sexual concerns with their patients. Attitudes are more positive in younger subjects, in women, in African-Americans, in those for whom sexual activity was very important, and in those who discuss sexual concerns with others. Limitations specific to this study include the fact that attitudes toward discussing sexual concerns were measured using the responses to only one test item thus possibly severely reducing the reliability of the finding. Also, because the population sampled is from a large university, it is small, heavily male, and much more highly educated than the general population.

Baggs and Karch (1987) studied the issue of sexual counseling from the patients' point of view using a descriptive survey study design. A sample of 58 women was obtained from a large teaching hospital in upstate New York. Eligible participants were women who had been admitted to the coronary care unit with a diagnosis of myocardial infarction, rule out myocardial infarction, or angina, and were alert, oriented and English speaking. The author interviewed each woman within 2 or 3 days of expected hospital discharge, which falls 2 days after discussion of sexual activity is suggested in the hospital's Cardiac Rehabilitation Protocol. The interviewer gathered data related to age, marital status, diagnosis, and living arrangements prior to hospitalization. Further questions explored sexual activity level, feelings about being sexually active, reasons for lack of sexual activity, occurrence of counseling about sexual activity (when, how, from whom, and its perceived helpfulness), and suggestions as to how sexual counseling should be presented.

Study results showed that of the women interviewed, 41% reported being sexually active. Forty percent of the women were not sexually active because of the lack of a partner or spouse. Nineteen (33%) related that they had received information concerning return to sexual activity during their hospitalization. Specifically, 17 (29%) had read the brief paragraph on sexual activity in the rehabilitation booklet given to most myocardial infarct patients in this cardiac care unit. Of the two remaining patients, one requested information from the cardiology Fellow, and one woman had a counseling session that involved her partner with her nurse who initiated the counseling.

Seventy-nine percent of the patients were interested in being given a copy of the American Heart Association booklet about sexual activity. Seventy-six percent of the

women stated that a health care professional should routinely initiate discussions about sexual activity. The older women tended to believe less often that this should be so.

Patients reported that it is very difficult for them to initiate a discussion related to sexual activity and gave reasons such as shyness, embarrassment, fear, difficulty for older people to begin a discussion about sex. The two women in this study that did receive information expressed positive feelings about it and had no criticism of the health care professional that spoke with them.

It is clear from this study that one cannot make assumptions about patients' sexual activity or their interest in sexual counseling. The lack of information about the return to sexual activity has been cited as the reason for increased fear and decreased levels of sexual activity.

Nurses' knowledge and attitudes toward sexuality

Payne (1976) studied the relationships among knowledge, attitudes and statements of nursing behavior about sexuality and the degree of comfort with sexual situations. The Sex Knowledge and Attitude Test (SKAT) and the Professional Sexual Role Inventory (PSRI) were mailed to 67 baccalaureate senior nursing students and to 108 statewide registered nurses of the Louisiana Family Planning Program. Payne explored the correlation of knowledge, attitudes and comfort with sexuality and eight independent variables which included age, marital status, race, nursing degree, religion, frequency of church attendance, religiosity, and urbanization of place of employment. The results demonstrated that nursing students scored higher on every test compared to practicing family planning nurses. Overall, younger, married, less religious, more urban, catholic

nurses had a higher correlation with sexuality knowledge, attitudes, and comfort with nursing situations with sexual overtones.

In a similar study, Kuszynski (1980) compared SKAT scores of 55 graduate nursing students, 55 sophomore medical students, and national normative scores of graduate non-medical students. Graduate nurses scored lower than the normative group for the attitude and knowledge portion of the SKAT (significant only for the attitude scores). Overall there was no significant difference in scores between the graduate nursing students and medical students regarding sexual knowledge or attitude. Kuczynski concludes that it is not enough to include a course on human sexuality in nursing or medical curricula, because knowledge does not necessarily change attitude.

Roy (1983) compared the SKAT scores of forty female sophomore baccalaureate-nursing students to national normative values for nursing students and undergraduate, non-medical females. The students were pre-tested and post-tested during the semester while they were enrolled in a five credit hour course involving human sexuality. The sophomore students scored higher on the posttest for knowledge than they did on the pretest. The attitude portion of the SKAT includes autoeroticism, heterosexual relations, sexual myths, and abortion. Upon posttest, students scored significantly higher only on the autoeroticism section. Roy also found that there was no significant difference between the knowledge of the nursing students who completed the course and the normed group of nursing students.

Quinn-Krach (1988) explored the knowledge and attitudes of nursing students regarding the sexuality of the aged. The sample included 158 nursing students enrolled in a university nursing school (66 sophomores in an ADN program, 63 in their senior year of

BSN program, 29 in first year MSN program). All students completed the Aging Sexuality Knowledge and Attitude Scale (ASKAS) and a biographical data sheet during regularly scheduled class periods. The two portions of the ASKAS used in this study were composed of 15 five-choice attitudinal statements and 30 true/false knowledge questions. Using correlational analysis, she determined the relationship between the two dependent variables (knowledge and attitude) and the independent variables (ethnicity, age, year of experience in health care, family income, religious affiliation, religiosity, living arrangements, and level of education). The results indicated a significant positive correlation between students' knowledge and attitude toward aged sexuality. Quinn-Krach also found a significant difference in ethnicity and negative attitude and knowledge regarding sexuality of the aged. A third significant correlation was found between nurses' age and positive attitudes and knowledge related to sexuality of the aged. She comments that it is difficult to adequately isolate variables (for instance, nurses' age is sometimes confused with their years of experience).

Nurses Working with Specific Populations.

Lewis (1994) asked 357 registered nurses to complete a multi-choice questionnaire with sections describing demographic details, nursing practice, and the Sex Knowledge and Attitude Test (SKAT). The section on nursing practice specifically looked at nurses' comfort in discussing sexuality with their patients, which topics are discussed, and whether a sexual history is completed on admission to the acute care hospital. The SKAT has been widely used world wide on large samples of student nurses, registered nurses, medical students, and undergraduate students and has been found to be valid and reliable (Miller and Lief, 1979). The questionnaires were distributed to all

registered nurses working on adult units in the group of hospitals associated with St. Mary's Hospital in London, England. One hundred sixty one questionnaires were included in the data analysis (response rate of 50%). These data were also compared to Lief's data from a group of graduate nurses from the USA in 1972.

The results suggest that the vast majority of nurses felt sexual counseling was within the role of nursing (86.9%) and that they were adequately educated to do so (78.5%). However approximately half of the nurses reported feeling embarrassed when discussing sexuality with patients. Although 58% of nurses felt it was relevant to take a sexual history, only 34 % asked questions related to sexuality on admission. Nursing practice did not correlate significantly with nurses' sexuality knowledge or attitudes. A great cause for concern is that nurses' knowledge and attitudes about sexuality have not increased at all in twenty years, despite a huge change in cultural attitudes and heightened public awareness of sexual matters (Lewis, 1994).

Lewis discusses an excellent issue related to current theories about attitude. She relays that attitude is made up of cognitive, affective and behavioral components. The affective component is much more difficult to change than the cognitive element. Therefore, education may be more effective if in addition to supplying information, it also helped nurses overcome personal biases enabling them to provide appropriate interventions related to patients' sexuality.

Webb (1988) conducted a similar study in the United Kingdom with a sample of fifty nurses from two gynecological and two non-gynecological sites. Questionnaires including biographical data, Sexual Knowledge and Attitudes Test, Attitudes Toward Women Scale, and Patient Advice Situations (adapted from Payne's PSRI 1976) were

administered to individuals or small groups of these nurses. Webb found no significant differences in biographical data between any of the sites. Nurses scored only 59% on the Sexual Knowledge portion of the SKAT. The attitudinal scores were skewed toward the more conservative and traditional. The Attitude Toward Women scores again were more conservative except for the nurses at site one where they approached the midpoint of the scale. Because the SKAT Attitudes and the Attitudes Toward Women scores were not significantly correlated, Webb questioned the continued validity of the SKAT that was originally validated in 1971 and technological advances and changing social attitudes may produce a need for a more up-to-date test.

The following two studies looked at nurses' attitudes and behaviors related to sexuality in cancer patients. Williams and Wilson (1986) conducted an exploratory study using data collected as part of the evaluation of a community-based cancer nursing continuing education curriculum. The convenience sample consisted of 211 registered nurses who participated in a regional two week cancer nursing continuing education program. A multi-sectioned instrument developed by the authors was administered to the nurses at the beginning of the cancer continuing education program. Seven Likert-scale items were designed to measure attitudes toward sexuality and were included in a 40 item instrument measuring attitudes toward nursing care of cancer patients. The two questions regarding nursing behavior looked at the percentage of patients that the nurse taught breast or testicular self-exam, and also the percentage of patients that the nurse offered to be available to for discussion regarding their sexuality concerns. Using chi square analysis, it was shown that each attitudinal and behavioral item was statistically independent of age, educational level and nursing specialty. Frequency distribution was

performed on all items. Sixty seven percent of the nurses denied that they were uncomfortable discussing sexual issues with patients. Only 40% identified discussion of sexuality as their responsibility. Only 21% of the nurses told greater than 50% of their patients that they were available to discuss sexual it concerns. Unfortunately, the majority of nurses in this study did not feel sexual counseling was part of their role despite the 'Outcome Standards for Cancer Nursing Practice' stating that this is so. An interesting point to consider is the fact that in an age where shorter hospital stays, higher patient acuity and increased nursing demands are the norm, it may not be reasonable to expect "holistic care". Nurses may not have the time or energy to address concerns regarding sexuality (Williams and Wilson, 1986).

Wilson and Williams (1988) revised the Williams - Wilson Sexuality Survey (WWSS) and duplicated their work in this descriptive study. They sent the questionnaire to a random sample of 1500 registered nurses from two national oncology nursing organizations: the Oncology Nursing Society (ONS) and the Association of Pediatric Oncology Nurses (APON). A 62% return rate was achieved. Items were written to reflect six attitude themes which included nurses comfort with including sexuality in their care, belief about success of intervention, personal attitudes toward sexuality in own illness, sense of responsibility, right to sexual activity in the hospital, and attitudes toward sexuality in illness. The three behavioral themes focus on utilization of resources, behaviors involved with co-workers and behaviors involved with patients. The results showed 91% of the nurses agreed that patient sexuality should be a routine component of oncology nursing care. Approximately 50% felt that sexual desire is normally decreased during a chronic disease such as cancer. Only 57% reported that they were comfortable

initiating a discussion of sexuality with their patients. Only 32% of the nurses reported using the nursing diagnosis "Alteration in Sexuality" in their nursing care plans. Eighty nine percent of the nurses stated that in the last six months they had offered sexual counseling to 10 or less patients and \or significant others. Nurses commented that their reluctance to discuss patients' sexual concerns was related more to a lack of knowledge than to feelings of discomfort with a sensitive subject matter. Subjects reported that 77% of their work settings did not offer continuing education programs related to sexuality. Using regression analysis, the hypothesis that oncology nurses with more positive attitudes toward sexuality in cancer patients would report more sexually-related nursing practices was supported in this study. In addition, numerous themes were identified in the nurses' written comments. One theme was that nurses discussed sexual concerns with patients only if patients initiated the discussion. As in previous studies, nurses commented on the fact that increased patient acuity and decreased length of hospital stay created barriers to including sexuality in their care planning.

Shuman (1987) conducted a descriptive correlational study using a sample of 50 cardiac care nurses from two hospitals in Pennsylvania. Folders containing a cover letter and a questionnaire were posted on the cardiac units so that nurses could complete them in privacy and at their convenience. The Sex Knowledge and Attitude Test (SKAT) was used as in many of the previous studies. Also, the author developed the Myocardial Infarction Sex Education Attitude Scale. This included four statements related to perceived level of comfort, preparedness, role responsibility, and inclusion of sex teaching in their care for post-myocardial infarction patients. The results showed that increased sexual knowledge is associated with more accepting attitudes. Eighty two

percent of the cardiac nurses believed that teaching the post myocardial infarction patient about sex should be the nurses' role. Unfortunately, only 52% of the nurses reported that they always or usually include sex teaching in their care of these patients. Although cardiac nurses achieved slightly higher scores on the knowledge test than norms for the SKAT, 50% responded that they did not feel comfortable or knowledgeable enough to provide sex teaching for post-myocardial infarction patients. Shuman discusses the ramifications of this study for nursing education. She concludes that because sex knowledge and attitude scores do not relate to the nurses' perception of sufficient knowledge, comfort, responsibility and behavior, nursing education needs to focus on increasing nurses' confidence in their knowledge, and increase their comfort in providing sexual education.

Practice

Matocha and Waterhouse (1993) examined nurses' practice related to sexuality. Every 17th nurse was selected from a list of currently licensed registered nurses supplied by the state's Board of Nursing. One hundred fifty-five (31%) nurses of the 500 potential subjects responded to the questionnaire. The Survey on Sexuality in Nursing Practice (SSNP) was developed for use in this pilot study. It was comprised of 36 multiple choice, 5 short answer, and 1 open ended question. The SSNP measured the percentage of clients with whom the nurse had addressed sexuality in the past year, the frequency of various sexuality-related nursing activities, nurses' perceived knowledge of sexuality, nurses' opinion about their responsibility to provide sexuality-related care, nurses' comfort level when discussing sexual concerns, and nurses' participation in continuing education related to sexuality. Practice areas were coded by theoretical relevance of practice in

sexuality for that area as documented in the area (1 = least important, 3 = most important). Interestingly, rehabilitation was cited as an area where sexuality is most relevant for nursing practice. As in previous studies, the results showed that nursing practice related to sexuality is inadequate based on existing nursing standards (American Nurses' Association, 1980). At least one third of the nurses never discussed sexuality with clients, assessed sexual health, or taught about sexuality. Seventy two percent never used the nursing diagnoses "Sexual Dysfunction" or "Altered Sexuality Patterns". Only 31% of the nurses believed they were very knowledgeable about sexuality. Fifty nine percent stated nurses usually or always had a responsibility to discuss sexual concerns with their patients. Sixty nine percent felt comfortable discussing sexual concerns.

The University of Kentucky Quality Assurance committee had been struggling since 1985 with unacceptably low scores on their clinical monitoring tool in the area of human need: "sexuality". Assuming the problem was nurses' knowledge deficit, two all-day work shops plus numerous inservices related to sexuality were presented to the nursing staff. Follow-up concurrent audits continued to show little or no improvement. Their nursing history form was changed several times to better guide the nurses in assessing patients on admission to the hospital. This also had no noticeable improvement on the QA scores. As a result, Kautz, Dickey, and Stevens (1990) conducted a study to discover the underlying reasons for failure to meet their hospital's nursing care standards in the area of sexuality.

The authors developed a three part 53-item questionnaire. The first section listed 13 variables that might interfere with nurses addressing sexual concerns and asked nurses to rate their level of agreement with the statement. Part two presented a patient scenario

and asked the nurse to rank by priority five nursing interventions related to pain control, activity, elimination, sexuality, and discharge planning. (Scenarios were different for each type of nursing unit examined.). The third section was also unit specific scenarios that contained a sexual concern initiated by the patient. The nurses were asked to rank their level of knowledge and willingness to address the sexual concerns of the patient. Five hundred fifty five registered nurses employed by the hospital were given the questionnaire and asked to complete it during their shift. Three hundred twelve (56%) were returned. The results showed that most variables were not perceived as barriers by nurses. However, four variables had high overall mean scores throughout the hospital. These included, (1) "other RNs do not discuss sex," (2) "sexuality is not seen as a problem by the nurse," (3) "the patient is too ill to discuss sex," and (4) "discussing sexuality causes the patient anxiety." The results of section two demonstrate "pain management teaching" as the number one priority, and "discussion of sexual concerns" falling fourth, only preceding the intervention of "discharge teaching". In section three, nurses overall perceive themselves as both knowledgeable and willing to discuss sexual concerns. The results varied slightly among units, but it was thought to be more the result of the differences in the research scenarios than true differences in the abilities of the nurses. In addition, the data made clear the following insights: (1) Nurses perceive patients as too ill and too anxious to discuss sexual concerns, (2) Nurses state they are willing and able to discuss sexual concerns if patients initiate the discussion, (3) Nurses perceive sexual concerns of patients low priority, (4) Nurses do not see peers addressing sexual concerns of their patients, (5) Obstetric and psychiatric nurses reported higher levels of skill and knowledge.

After analyzing the data, Kautz (1990) presented the findings of the study to nurses on each unit and facilitated the generation of ideas to successfully meet the nursing standards of care in the area of sexuality. The nurses agreed with the results. They shared that they needed written educational materials specific to their patient populations to assist in discussing sexual concerns with their patients. Nurses also reported a need for role models to decrease their own anxieties and negative peer pressure in discussing sexual concerns with patients. The investigators identified a need to inform nurses about other research findings that have shown that patients do have significant sexual concerns and they want nurses or physicians to address them even if it does cause anxiety or embarrassment.

Summary of Current Research Limitations

Although the preceding studies have contributed to better understanding of sexuality and nursing care, limitations do exist. Not all of the studies give a clear definition of sexuality, and if they do, rarely is it consistent with other authors. Few studies attempt to link their work to a conceptual framework. Due to the specific nursing specialties studied, the results are not generalizeable to other settings or geographical areas. The majority of researchers utilize voluntary completion of questionnaires to collect their data. Selection bias may occur since the sample may be significantly different from the non-respondents. Also, the questionnaire itself may act as a change agent and suggest certain responses or stimulate an interest in the subject that the individual did not previously feel. Furthermore, the results may be skewed due to the fact that the individual is aware of their subject status, thus causing them to respond in a way that reflects more positively on them. One of the most difficult limitations to surmount is the

fact that nearly all of the data collected is by nurses self - report, rather than by direct observation of their behavior or a nurse - client interaction.

Summary

Research regarding nurse's knowledge, attitudes toward, and behavior related to human sexuality strongly suggests that nursing practice does not meet the current standards. The majority of nurses do not assess, monitor or detect the human response to altered sexuality of their clients. Nurses report deficits in their knowledge base, and also poor comfort with the subject. Also, nurses report conflicts in their environment that do not support quality care related to sexuality (e.g. workload, continuity of care, continued education,etc). There is a need to continue nursing research in the area of nurses' attitudes and behaviors that influence the nursing care of individuals with altered sexuality until we meet that level of excellence that we have set for ourselves.

Research Questions

What attitudes and behaviors do nurses express regarding care of rehabilitation patients with potential alterations in sexuality? What is the correlation between these attitudes and behaviors?

Definition of Terms

Sexuality is the integration of the somatic, emotional, intellectual, and social aspects of sexual being (World Health Organization, 1975).

Attitudes are relatively stable predispositions to respond in particular ways (Wilson& Williams, 1988).

CHAPTER THREE

METHODS

Research Design

A descriptive study design was selected to explore the attitudes and practices of rehabilitation nurses that may affect the care of rehabilitation patients with altered sexuality. This study replicated William's and Wilson's research with oncology nurses in 1986. The Williams-Wilson Sexuality Survey was used in this study (Wilson, Williams, 1988). Advantages of this design were the efficiency in data collection, and also the ability to gather data from a broad sample. Disadvantages included the inability to actively manipulate independent variables and the inability to accurately draw cause-and-effect conclusions. (Polit & Hungler, 1987).

Population and Sample

The Association of Rehabilitation Nurses (ARN) is an international nursing association with a population of approximately 9200 members. ARN is dedicated to providing rehabilitation nurses with the resources necessary to provide quality care to those with physical disabilities or chronic illness. This population was chosen based on the significance of sexuality to rehabilitation nursing practice. Rehabilitation was deemed one of the top six nursing specialty areas where nursing practice related to sexuality was most relevant (Matocha & Waterhouse, 1993). ARN provided this researcher with a random sample of 250 names of registered nurses from their membership.

Instrument

The Williams-Wilson Sexuality Survey (WWSS) (Appendix B) was developed by Williams and Wilson in 1986 to assess the attitudes and practices of nurses caring for cancer patients with altered sexuality (Wilson, Williams, 1988). The item pool was created from their original tool and an updated literature search. Items were written to depict six attitude themes and three behavioral themes. An expert panel in oncology and/or sexuality assessed the tool for content validity, clarity and ease of administration. Interrater agreement on the items was 92% (Wilson, Williams, 1988).

Nurses' attitudes were measured via a six-point scale with response options of strongly disagree (1) to strongly disagree (6). The original attitude section contained 31 items, however 6 pediatric items were dropped and an additional 10 items were not used due to poor response rate and low factor analysis scores. The coefficient alpha for the remaining 15 attitudinal items was 0.82.

Nurses' behavior was measured by 12 items originally. Two items were dropped from the final tool because of low factor analysis scores. The coefficient alpha for the remaining 10 items was 0.78. Nine questions measured if a specific behavior occurred or not therefore offering a nominal level of measurement. One questions asked how frequently a particular behavior was demonstrated using an ordinal scale (Wilson, Williams, 1988).

Procedure

A copy of the WWSS, a demographic questionnaire, a cover letter, a return post-card, and a stamped, self-addressed envelope was mailed to 250 ARN members. The demographic questionnaire included information regarding age, gender, education,

primary area of practice, nursing role, rehabilitation experience, continuing education and what percentage of clinical caseload is rehabilitation. The cover letter described the study and gave instructions for use. The post-card contained a box to indicate that the individual had completed and returned the WWSS separately. There was also a place to indicate that they would like to receive research results on the post-card. The post-card had the nurses name and address on it. By including this post-card, nurses responses on the WWSS remained confidential, but this author knew who returned their survey. If the response rate had been inadequate, a reminder and a second WWSS would have been mailed to those who did not respond.

Upon completion of this research, results were shared with Margaret Wilson, the author of the original WWSS and with those members of the sample who indicated a desire to review research results.

Human Subjects

This study was exempt from review by the Human Subjects Research Review Committee due to the fact that the survey will be distributed without any identifiers linked to the subjects, the subjects responses could not place them at risk for criminal or civil liability, nor does this research deal with sensitive aspects of the subjects personal behavior. Participation in this study is voluntary only. Return of a completed questionnaire constitutes informed consent (Grand Valley State University Kirkhof School of Nursing Thesis Handbook, 1996).

CHAPTER FOUR

DATA ANALYSIS

The goal of this study was to describe nurses' attitudes and behaviors that may have an impact on the nursing care of rehabilitation patients with alterations in sexuality. Using the results of the Williams-Wilson Sexuality Survey (WWSS) the attitudes and behaviors reported by nurses along with their demographic variables were analyzed descriptively.

Nurses' attitudes were described via the frequency and percentage of those attitudes that were positive and negative. The item mean response scores were computed and used to rank order those attitudes that were most positive and most negative. The total attitude scores were analyzed with respect to specific demographic variables (e.g. attitude and highest degree held).

Nurses' behaviors were also be descriptively analyzed. The most and least commonly practiced patterns of behavior were described. Likewise, behaviors were also examined with respect to specific demographic variables. Finally, the relationship between nurses' total attitude scores and behavior scores were examined using a Pearson product moment correlation.

Characteristics of Subjects

Of the 250 surveys distributed, 101 (40%) surveys were completed and returned. Of the nurses who responded, 98% were female. The majority of nurses (46%) were in the 40 – 49 year old age range, with 21% in their 30's, and 27% in their 50's. Basic nursing educational preparation was nearly evenly distributed: 35% Associate degree, 29

% Diploma, and 35% Bachelors degree. Many of the nurses in this sample continued their education and completed masters or doctorate degrees in nursing (23%).

Rehabilitation nurses were employed in a variety of settings. The largest percent (32%) worked in a hospital with a rehabilitation unit. The second most commonly named type of employer was an acute care setting (16%), followed by 14% who worked in a subacute rehabilitation facility. Other areas of practice included schools (8%), insurance companies (5%), long term care (4%), home health care (4%), hospital setting with no rehab unit (2%), and state agencies (1%). One percent of the nurses surveyed were unemployed. Nearly 12% worked in other settings.

There are many different roles for rehabilitation nurses. Twenty five percent of the sample worked in staff nurse positions. Fifteen percent occupied nurse management positions. Nurses in the present sample also worked in roles such as academic educator (6%), insurance consultant (5%), clinical nurse specialist (4%), nurse practitioner (4%), home health nurse (3%), staff development educator (2%). The final third of respondents reported working in other roles.

In this study, 58% of the nurses had greater than 10 years of experience in rehabilitation. Twenty one percent worked 6-10 years. Twelve percent worked 3-5 years, and ten percent worked two years or less (see table 1).

Table 1

Nurses' Years of Work Experience

# years	<2 years	3 – 5 years	6 –10 years	> 10 years
% nurses	10 %	12%	21%	58%

The majority of nurses worked with an adult and geriatric population (54%). Eighteen percent described working with an adult population. Six percent worked with geriatrics only. Four percent of the nurses worked in a pediatric specialty area. The remaining 19% worked with individuals of all ages.

The vast majority of nurses reported working in general rehabilitation (67%), while eight percent worked primarily in spinal cord injury, and another eight percent worked primarily in stroke rehabilitation. Six percent of nurses worked in brain injured rehabilitation.

Table 2

Percent of Nurses Working in Specialty Areas of Rehabilitation

Rehab Specialty	General	Spinal Cord Injury	Stroke	Brain Injury
% Nurses	67%	8%	8%	6%

Fifteen percent of the rehabilitation nurses in this study participated in research. Twenty percent of the nurses were currently working toward a higher degree. Of that percentage, 55 percent were working on a BSN, 25 % on MSN, and 20% on a degree in another area.

Approximately one third of these nurses were members of their state nurses association. Just over half of survey respondents had attended a state or national rehabilitation conference within the past two years.

Nearly one third (30%) reported experiencing a condition that required rehabilitation themselves, and even more state that their significant other required

rehabilitation at some time (41%). Still further, 26% reported that they or their significant other had a condition, disease or treatment that affected their sexuality.

Overall, this population of nurses tended to be mature, educated and experienced in a variety of rehabilitation settings. A surprisingly large portion of the sample or their significant others had life experience with alterations in sexuality.

Attitudes

The survey had eleven questions with a six-point scale where 1 was strongly disagree and 6 was strongly agree. A number of the survey questions were phrased in such

a way that a response of 6 actually indicated a negative attitude response. When the survey results were tabulated, the scores were then reversed. The alternate wording was used to discourage respondents from giving what they perceived to be a more favorable response. The possible range of scores on the attitude scale was 11 – 66. The actual results ranged from 21 to 65, with a mean of 48 and a standard deviation of 10. The higher the attitudinal scores the more positive the attitude of the nurse regarding sexuality of rehabilitation patients. The Cronbach alpha analysis of internal consistency for the attitude scale was .83. Table 3 shows the mean attitudinal responses in rank order from most positive to most negative.

Although their responses were not predominantly "strongly agree", a great number of the nurses (87%) believe that their sexual counseling makes a difference in the lives of their patients. Further yet, two thirds of the nurses believe that a specialist does not do a better job of sexual counseling than they do.

Interestingly, greater than three fourths (79%) of the nurses reported that they strongly agree that in some circumstances, sexual activity is appropriate in a hospital situation. Although not as adamant on the "strongly agree" scoring, the majority of the sample (73%) felt that if they had a condition requiring rehabilitation, sex would indeed be something that they would be concerned about.

Approximately two thirds (68%) of the sample felt comfortable initiating a discussion about sexuality with their clients. Of that 68%, only 25% strongly agreed with that statement.

A majority (67%) of the sample indicated that they strongly agreed that offering sexual counseling is an integral component of nursing care. Correspondingly, the majority of the sample (67%) strongly agreed that sexual desire is not normally decreased for an individual requiring rehabilitation. Similarly, a majority (60%) of the sample reported that they strongly agree that sexuality is a major concern for their patients in rehabilitation settings.

More than half of the sample (57%) indicated that they agreed that patients have the right to lock their hospital door. A majority (57%) of nurses also reported that they strongly disagreed with the statement that they were embarrassed when they saw patients and their significant other lying in bed together.

On occasion, nurses inadvertently interrupt patients engaging in sexual activity. Nearly twenty percent of the sample stated that this question did not apply to them. Of those that did respond, it was fairly evenly distributed as to whether they felt uncomfortable in that situation or not (39% and 42% respectively).

As can be seen, the rehabilitation nurses in this sample had a positive attitude towards sexuality and the care of their patients. They generally recognized sexuality as a pertinent topic of discussion, and felt confident in their knowledge and skills to provide quality care in this area.

Table 3

Rank Order Mean of Attitudinal Responses

It does not embarrass me to see patients and their significant other in bed together.	5.29	
Sexual activity is not inappropriate while a patient is in the hospital.		5.05
Sexual desire is not normally decreased for an individual requiring rehabilitation.	4.86	
Offering sexual counseling is an integral component of primary nursing care.	4.73	
When I offer sexual counseling to my patients, it seems to make a difference.	4.47	
Sexuality is a major concern for my patients.	4.43	
I am comfortable initiating a discussion of sexuality with my clients.		4.23
If I had a condition requiring rehabilitation, sex would be something that I would think about.	4.13	
A specialist does not do a better job of discussing sexual concerns with patients than I could possibly do.	3.91	
Hospitalized patients have the right to lock their doors.	3.51	
I have not felt uncomfortable in the past when I have interrupted patients engaging in sexual activity.	2.93	

Behavior

The Williams-Wison Sexuality Survey had ten questions with a space to select the most appropriate answer. Nine questions had "Yes" or "No" response options. These questions dealt with the nurses' behavior regarding care of the rehabilitation client in the area of sexuality. The tenth question asked about the number of patients and their significant others to whom the nurse had offered sexual counseling in the past six months.

The total possible range on the behavior scale is 0 – 9. Results showed an actual range of 0 – 9. The mean score was 3.0 with a standard deviation of 2.5. The reliability coefficient for the behavior scale using the Kuder-Richardson 20 (KR20) statistic equals 0.36.

When asked the number of patients to whom they had offered sexual counseling in the last six months, 57% reported zero. Thirty seven percent reported counseling less than ten patients. Only one nurse in this study offered sexual counseling to greater than thirty patients in the last six months. On the other hand, 59% discussed patient sexuality concerns with another nurse in order to plan patient care. One third of the nurses included "Potential for Alteration in Sexuality" as a nursing diagnosis in their patient care plans.

Fifty seven percent of the nurses talked to patients about their concerns about loss of attractiveness to a sexual partner. Nearly a third (32%) of the nurses went on to talk to the spouse or significant other. Teaching tools or visual aids (e.g. penile implants, diagrams of sexual positions) were used by 34% of nurses in their teaching. Nearly half of the nurses (46%) discussed alternate positions for intercourse with rehabilitation patients. Another 35% of the nurses discussed alternatives to "genital to genital" sex with rehabilitation patients.

Thirty eight percent of the nurses surveyed denied caring for a patient who was a known homosexual. Of the remaining 62%, 13% of nurses reported discussing alterations in sexuality with him or her. Only 6% continued this discussion with the patient's significant other.

Relationship Between Attitudes and Behaviors

The research questions addressed in this study were:

1. What attitudes and behaviors do nurses express regarding care of rehabilitation patients with potential alterations in sexuality?
2. What is the correlation between these attitudes and behaviors?

The descriptive analysis answered the first question. The analysis of the relationship between the attitude and behavior subscales of the Wiliams-Wilson Sexuality Survey results showed that the there was a significant positive relationship between total scores on the attitude and behavior subscales ($r=.59$, $p<.001$). This indicates that the more positive the attitude of the nurses towards sexuality of rehabilitation patients, the more likely they would demonstrate positive behaviors for patients in the area of sexuality. Positive nursing behaviors include sexual counseling, patient education, discussing patients or significant others concerns, collaborating with health care professionals about patient care, or documenting of alterations in sexuality in the Patient Plan of Care.

Additional Findings

Additional analyses were performed to examine whether age, education, and years of experience made a difference for attitude or behavior. Attitude scores were more positive as the educational degree held increased. An ANOVA analysis showed that there was a statistically significant difference among attitude scores by initial educational degree ($F=5.12$, $p = 0.008$). The Scheffe statistic showed that nurses with a BSN had statistically higher attitude scores when compared to those with an ADN ($p = .009$). Although mean behavior scores tended to be higher as education increases, this difference was not significant (see Table 4).

Interestingly, nurses with greater than ten years of experience in the profession of nursing had a significantly more positive attitudes and behaviors than their counterparts

who were more novice (t= -2.64, df=89, p=.01 and t= -3.87, df=99, p<.001 respectively). Similarly, nurses in the 40-49 year old age group had the most positive attitude and behavior scores (mean = 49.0 and 3.5 respectively), however this was not found to be statistically significant.

Table 4

Attitude and Behavior Scores by Highest Education

	ADN	Diploma	BA(non-nsg)	BSN	MSN/PhD
Number of Nurses	24	15	5	32	23
Attitude					
Mean	42.5	44.8	48.3	49.5	50.4
SD	11.8	11.9	2.2	7.5	7.6
Behavior					
Mean	2.4	2.4	2.6	3.3	3.7
SD	2.5	2.8	2.3	2.8	2.8

The findings show that attitude and behavior scores related to sexuality are higher for nurses with higher initial education, greater years of nursing experience and in an older age group. Also, the more positive the nurses attitude toward human sexuality, the more likely they were to report positive nursing behaviors in caring for rehabilitation patients with alterations in sexuality.

CHAPTER 5

DISCUSSION

The purposes of this study were twofold. The first was to ascertain the attitudes and behaviors of nurses that may influence the nursing care of rehabilitation patients experiencing alterations in sexuality. The second purpose was to identify the correlation between these attitudes and behaviors.

The nurses in this study were derived from a random sample (250) of Association of Rehabilitation Nurses (ARN). Of the 250 surveys distributed, 101 (40%) were completed and returned. The population was self-selected by the fact that they responded to the Williams-Wilson Sexuality Survey. Those who participated were, in general, a mature, experienced and educated group of nurses. Nearly all of the respondents were female. All were members of their professional rehabilitation nurses' organization, and many also belonged to their state nurses association. Although most of these nurses held staff nurse positions (26%), some were managers (17%), educators (8%), and advance practice practitioners (8%).

Unexpectedly, 30% of the sample reported experiencing a condition that required rehabilitation services for themselves, and 41% of their significant others required rehabilitation. Of this portion of the sample, 26% reported that they or their significant other had a condition or disease that affected their sexuality. Because of their personal experience with this research topic, they may be more likely to discuss/counsel patients and families and demonstrate more positive nursing behaviors toward helping patients with issues of sexuality.

Attitude

In this study, nurses' attitudes toward sexuality and rehabilitation patients were quite positive (mean score was 48 on a range of scores from 11 to 66). When the attitudinal responses were rank ordered by mean response, the themes of the most positive statements suggested that nurses expect sexuality to be a major concern of their patients and that sexual expression is acceptable while a patient is in the hospital. However, the lowest ranked response indicated that nurses are embarrassed when they interrupt the sexual activity of their patients. It seems that although the sexual activity itself is accepted, the nurses feel understandably embarrassed to invade the privacy of the couple. It may be interesting to know how the nurses would react if patients and their significant other were given an appropriate setting, time, and privacy for sexual intimacy.

The issue of the patient's right to lock his/her hospital door was one of the least supported attitude questions. This issue needs to be explored further. On one hand, in order for patients and their significant others to feel confidently private and not fear inadvertent interruption, it would seem appropriate to allow them to lock their door. On the other hand, for patient safety and to prevent harmful or illegal activity (e.g. use or alcohol or drugs) for all patients in the hospital, locking doors may be prohibited. Potentially, an intermediate solution could be established, such as allowing patients to use a more private room such as the Activities of Daily Living (ADL) apartment found in many rehabilitation settings. Another suggestion may be to allow them to lock the door but give a key to the charge nurse or to security in case of an emergency. Legal and liability issues surrounding this topic should be explored before any policies are put into place.

Several of the attitude questions dealt with nurses accepting sexual counseling as an integral role of nursing, providing sexual counseling, and the nurses' comfort level in discussing sexual concerns with patients. On a scale of 1-6, the mean scores for these specific questions were in the 4.23 - 4.73 range suggesting fairly positive attitudes. The nurses in this sample believe that sexuality is an appropriate area for nursing intervention in professional nursing practice. They also report that they are capable of providing meaningful, effective sexual counseling. Williams and Wilson (1986) comment that the term "sexual counseling" may imply the need for advanced education and that all nurses may not feel qualified to provide this type of care for their patients. It is also possible that nurses may not actually define the interactions they are having with patients as "counseling." If this is true, these attitude scores may be artificially low.

Behavior

Nurses provide care for rehabilitation patients through a multitude of behaviors. The behavior subscale of the Williams-Wilson Sexuality Survey (WWSS) had ten questions dealing with nurses' behaviors in providing care for rehabilitation patients with alterations in sexuality. Nine of the questions had "Yes" or "No" response options. The tenth question asked about the number of patients and their significant others to whom the nurse had offered sexual counseling in the last six months. A total possible range on the behavior scale was 0 – 9. The survey results showed an actual range of 0-9, with a mean score of 3.0 and a standard deviation of 2.5. This means that on average, nurses only perform three out of the nine behaviors described.

Over half of the nurses in the sample (57%) reported discussing patient concerns about loss of attractiveness to their sexual partner. About one third (32%) of the sample

went on to discuss these concerns with the patient's spouse or significant other. Approximately one third (34%) of the sample used teaching aides or visual aides during a discussion of sexuality with a rehabilitation patient. Just under half (46%) of the sample discussed alternate positions for intercourse with a patient who was experiencing an alteration in sexuality. Close to a third of the nurses (35%) discussed alternatives to "genital to genital sex" with their patient. It would seem that these data should approach one hundred percent if every nurse in the sample was truly providing quality rehabilitation nursing care.

Nearly two thirds (59%) of the sample discussed patient sexuality concerns with another nurse in order to plan patient care. Thirty three percent of the nurses stated that they included the diagnosis "Potential for Alteration in Sexuality" on the Nursing Care Plan.

Surprisingly, over one third of the nurses (38%) report never taking care of a known homosexual. Only a very few (13%) of the respondents discussed alterations in sexual functions with him or her. Fewer yet (6%) continued this discussion with the patient's significant other. These data raise questions as to nurses' assessment of the needs of gay and lesbian patients and their significant others and the quality of care that these individuals receive.

Greater than half of the nurses (57%) reported that they did not offer sexual counseling to any of their patients in the last six months. Thirty seven percent of the sample stated that they had counseled less than ten patients in the same time frame. It may be that the term "sexual counseling" was unclear and nurses in this sample were uncomfortable describing their interactions with patients as counseling.

Nursing behavior is very complicated and is influenced by many factors. Positive attitudes toward patient sexuality would seem to be an important driving force for participation in such behaviors as offering sexual counseling, including sexuality concerns on patient care plans, discussing these concerns with other health care providers. However, there are many other factors that may hinder such actions. Nurses may feel that they do not have the time to spend demonstrating these behaviors due to increased patient acuity, increased workload, and the decreased ratio of RNs to non-licensed personnel. Nurses may also feel that the culture of their workplace does not value sexual counseling (e.g. not addressed in nursing philosophy statement or patient care standards, no written educational information for patients, no teaching models to be used in education). Formal job descriptions, informal job expectations and peer interaction may not encourage nurses to provide care that promotes patients' sexuality. The work environment may not be conducive to quiet, private, undisturbed conversations with patients and their significant others. Finally, nurses may not have the academic preparation or ongoing specialized education to deal with patient sexuality issues. This includes the basic knowledge and understanding of sexuality and special needs, but also practice in how to approach clients and their families and what words to say. These barriers to nursing behaviors that deal with patients' sexuality must also be addressed in future nursing research.

The most serious questions raised by lower behavior scores is that if nurses are not consistently providing sexual counseling for their rehabilitation patients and families, who is? Are these needs being met at all? What is the effect on patients if

this area of their care is neglected? How can this be improved? Ongoing nursing research in this area is imperative.

Relationship of Attitude to Behavior

The statistical analysis showed a significant correlation between nurses' attitudes regarding patient sexuality and nurses' behavior. This means that the more positive attitude (higher attitude subscale score), the more likely the nurse was to demonstrate positive behaviors (higher behavior subscale score) that influence the nursing care of rehabilitation patients with an alteration in sexuality. This was a reasonable conclusion because if nurses believe that sexuality is important to their patients and that it is an integral part of their nursing care, it follows that they would provide interventions such as education and discussion with significant others and would include this in the care plan.

Interestingly, there was a correlation between more positive attitude and behavior scores and higher education. There was also a positive relationship between attitude and behavior scores and greater number of years of nursing experience. In addition, slightly older nurses (40-49 years) had higher attitude and behavior scores. Also, there is a positive relationship between attitude and behavior scores and slightly older nurses (40-49 year old age group). This may be explained by the fact that the nurses with these characteristics may have deeper knowledge and broader life experience. They may have a higher comfort level with sensitive subject matter because they have dealt with more difficult situations in their lifetime than younger, less experienced nurses. This finding would not support the concept that the younger generation is more liberal in their thinking and are more comfortable with dealing with situations of a sexual nature.

Conceptual Framework

Dorothy Johnson proposes in her behavioral systems model that each person is made up of a behavioral system composed of interrelated subsystems (Loveland-Cherry, 1989). Johnson identified seven subsystems that include attachment, dependency, ingestive, elimination, aggressive, achievement, and the sexual subsystems (Johnson, 1990). She suggests that the subsystems are linked and open, and that a fluctuation in any of the subsystems will alter the others.

Johnson states that sexuality is indeed an integral part of each individual. She goes on to say that the sexual subsystem serves two functions of procreation and gratification. If there is not adequate attention given to the development and balance of sexuality a person will not achieve an optimal level of wellness (Johnson, 1990).

The goal of the behavioral system is to maintain and restore balance and equilibrium among the seven subsystems. A subsystem (e.g. sexual subsystem) can be thrown into diseqilibrium if there is impeded development, inadequate nurturance, a disabling injury or disease, or a dominance of another subsystem thus causing stagnation (Johnson, 1990).

Nurses, in Johnsons' opinion, are to act as an external regulatory force to assist people back to a state of balance. Nurses attempt to reduce stress, promote adaptation, and encourage stability (Loveland-Cherry, 1989). Nurses accomplish this by protecting from noxious influences, nurturance and stimulation to enhance growth and prevent stagnation (Fawcett, 1989).

The goals of this study fit well with Johnson's behavioral model. The research questions for this study were to discover the attitudes and behaviors of nurses that

influence the care of rehabilitation patients with alterations in sexuality and the relationship between them. Do nurses really believe that sexuality is an integral component of their patients? Do nurses believe that it is their responsibility to nurture, educate and prevent stagnation of the sexual subsystem? Do nurses' behaviors reflect these values and beliefs? The Williams-Wilson Sexuality Survey is a useful tool for eliciting the data regarding nurses attitudes and behaviors that influence the care of rehabilitation patients with alterations in sexuality and the relationship between them.

The findings of the attitude portion of this study support Dorothy Johnson's behavioral systems model. Johnson states that sexuality is an extremely important aspect of all people. Nurses in this sample reported a generally positive attitude toward sexuality of their rehabilitation patients as evidenced by the mean score of 48 on the attitude subscale (possible range of scores is11-66). Beyond that, seventy three percent of the sample agreed to strongly agreed that sexuality is a major concern for their patients.

Although the behavior responses to this survey are not as quite as strong, the nurses in this sample are demonstrating many behaviors that fit with Johnson's beliefs about the role of nurses in restoring the sexual subsystem to a state of balance. Fifty nine percent of the sample discussed patients sexuality concerns with another nurse in order to plan care for that patient. A third of the nurses in the sample included "Potential for Alteration in Sexuality" in the Nursing Care Plan. Greater that half of the nurses (57%) discussed patients concerns about loss of attractiveness to a sexual partner. Thirty four percent of the sample used teaching tools or visual aids to enhance teaching and learning of sexuality. Just less than half of the sample (46%) discussed alternate positions for intercourse with a rehabilitation patient who was experiencing an alteration in sexuality.

These behaviors support Johnson's definition of the purpose of nursing to reduce stress, promote adaptation, and encourage stability.

According to Johnson, without appropriate attention, development and balance in each area of life, people will not achieve an optimal level of wellness (Johnson, 1990). It would follow then that if there is an imbalance in patients' subsystems due to injury or disease and nurses are not actively working to restore equilibrium, then they are falling short of their responsibilities as nurses.

It may be helpful for future research to identify clearly what specific behaviors Johnson would suggest that are the most practical in reducing stress and tension in the sexual subsystem, and how to most effectively promote adaptation and stability.

Limitations

There are a number of limitations to this study. The sample size was relatively small; 101 surveys (40 %) were completed and returned. Only 2% of the respondents were male; therefore, no information could be correlated to gender. This sample was self-selected by the fact that they are all members of the American Rehabilitation Association and choose to respond to this survey.

There were also limitations in the use of a written survey. The nurses surveyed had a limited number of answers from which to select for each question. There may have been many other answers if the questions were open ended rather than yes/no or a multiple-choice format. Also, there were only eleven attitude questions and ten behavior questions. Certainly there are a plethora of untapped inquiries that could be made in the area of alterations in sexuality. It would not be uncommon that the sample responded in a manner that they believed the researcher hoped to see rather than truly being honest in

their responses. There may also have been questions or terms that were not universally understood such as "sexual counseling" which may have been unclear.

The original authors of the Williams-Wilson Sexuality Survey submitted the item test pool to a panel of three experts in the areas of oncology and / or sexuality. They rated each item on a scale of one to three for appropriateness. Interrater agreement on the items was 92 percent. The expert panel also evaluated the items for clarity and ease of administration. The coefficient alpha for the original attitudinal scale was .82. The coefficient alpha for the behavioral scale was .78 (Wilson, 1988).

A further limitation of the WWSS may be that it was originally intended for oncology nurses rather than rehabilitation nurses. However, it is doubtful that this would be much of a hindrance. It would seem to be just as effective for the rehabilitation population as the oncology population.

Further Research

Further research is needed to validate the findings of this study. It would be interesting to replicate this study, but use a more open-ended format to encourage the respondents to give their own thoughts and ideas rather than selecting from a limited set of options. Future studies could also look at whether the attitudes and behaviors found in this study are unique to this population of rehabilitation nurses or whether other specialty nurses have similar issues.

Research is needed to discover how sexuality is being taught in current nursing education. Specifically, what are nurses being educated about sexuality content, what are appropriate nursing interventions, how to evaluate the effectiveness of the interventions, and the values and ethics of providing patient counseling in the area of sexuality. This

research should be focused not only in academic settings, but also look at continuing nursing education such as conferences and seminars.

Ongoing research should also address the culture and environment of the workplace of nurses and how this fosters or hinders positive nursing attitudes and behaviors in regard to patients' sexuality. What are the mission and philosophy statements, job descriptions, time allotments, and standards of care of the institutions in regards to caring for patients with alterations in sexuality?

Major research efforts must be aimed at identifying what patients and their families feel are their greatest needs with regard to their sexuality. Research should be focused on how patients feel their needs are being met or missed. Answers must be found as to patient and families feelings of what is the most effective means of supporting, educating and nurturing their sexuality subsystem.

Finally, the barriers to nurses meeting patients needs must be thoroughly researched and interventions determined and evaluated. If nurses are taught to value care of their patients with alterations in sexuality, then meet obstacles to providing that care, some changes must take place.

Summary

The purpose of this study was to explore the attitudes and behaviors of nurses that may influence the nursing care of rehabilitation patients experiencing alterations in sexuality. A second purpose was to identify the correlation between these attitudes and behaviors.

One hundred and one members of the Association of Rehabilitation Nurses (ARN) responded to the Williams - Wilson Sexuality Survey (WWSS). The possible

range of scores on the attitude scale was 11 – 66. The actual results ranged from 21 to 65, with a mean of 48 and a standard deviation of 10. The higher the attitudinal scores the more positive the attitude of the nurse regarding sexuality of rehabilitation patients.

A total possible range on the behavior scale was 0 – 9. The survey results showed an actual range of 0-9, with a mean score of 3.0 and a standard deviation of 2.5. This means that on average, nurses only perform one third of the behaviors described.

The analysis of the relationship between the attitude and behavior subscales of the Williams-Wilson Sexuality Survey results showed that the there was a significant positive relationship between total scores on the attitude and behavior subscales ($r=.59$, $p<.001$). This indicates that the more positive the attitude of the nurses towards sexuality of rehabilitation patients, the more likely they would demonstrate positive behaviors for patients in the area of sexuality.

Limitations to this study include but are not limited to a small sample size, the sample was self selected, and the sample represented only rehabilitation nurses. The Williams-Wilson Sexuality Survey (WWSS) only had eleven attitude questions and ten behavior questions. Also, the survey had a limited number of responses to each question rather than the freedom to express true beliefs or practices.

Further research is needed to continue to explore the practices of nurses caring for clients with alterations in sexuality. It is important to discover the educational preparation of student nurses. It is also valuable to study the culture and environment of the nurses' workplace and how this affects their practice. Research is essential to uncover patients' and families' expression of their greatest needs with regard to sexuality. Finally, research must identify the barriers to quality nursing care for patients with alteration in sexuality.

This study demonstrates that there is a need in nursing education for increased sexuality education in the cognitive and affective domains. Nurses must be taught how illness and disability affect the sexuality of their patients physiologically, behaviorally and psychosocially. They need to know appropriate nursing assessment, planning and interventions. They also need to practice these sensitive skills. Nurses must learn to examine and improve their attitudes and behaviors related to sexuality of their patients.

The implications of this study for nursing practice are very similar to those of education. Ongoing education and monitoring of nurses' attitudes and behaviors in a clinical setting is imperative. Specific behaviors appropriate for each unique workplace should be set as standards of care. Examples could include having a sexuality section on the intake assessment form, including sexuality issues in the patient plan of care, discussing sexuality issues in team conferences, providing patient family education classes and written information about sexuality, and develop a discharge education protocol that includes information regarding sexuality.

Ongoing research is essential in order to assure that nurses are providing quality, comprehensive care for their patients. Patients that experience alterations in sexuality are truly not at an optimal state of wellness. It is the nurse's responsibility to provide care that nurtures, enhances growth and prevents stagnation to maintain equilibrium (Johnson, 1990).

APPENDICES

Appendix A

Cover Letter for Williams-Wilson Sexuality Survey

Dear ARN Member,

"Can I have sex again?" "Will I be able to have my own children?" "How does this all work?" "Who will want me now?" These are questions I commonly hear in my work with rehabilitation patients.

I also hear nurses comment: "I just can't talk about sex!" "I'll talk to him if he brings up the subject first." "It is not my job, someone else will discuss sexuality with them."

Whose job is it? What is the nurses' responsibility in discussing sexuality with rehabilitation patients? Is sexuality a priority for rehabilitation patients? What are nurses' attitudes and behaviors regarding sexuality and the rehabilitation patient?

I am conducting this research project in order to gain some insight into nurses' feelings about these questions as well as to complete my Masters degree in Nursing. You have been selected for possible participation in this study because you are a rehabilitation nurse. Participation is strictly voluntary, but I would truly appreciate your help.

If you are willing, please complete the enclosed 10 minute survey and return to me in the self - addressed envelope. Do not put your name on the survey (thus your responses will remain anonymous). Return the enclosed post-card separately. By using this technique, your confidentiality will be maintained, and I will know with whom I need to follow up. If you would like to receive a summary of the research findings, please check the appropriate box on the postcard.

Sexuality is certainly a sensitive subject area, and many nurses are uncomfortable assessing for needs or planning care in this area. When you fill out the questionnaire, please give honest, sincere answers. Please do not try to give the "ideal" response if that is not true to your attitudes or actions. I am looking to discover the reality of our beliefs and practices in the realm of sexuality and rehabilitation.

Thank you so much for your dedication to rehabilitation nursing! Thank you for your time and for completing this task.

Sincerely,

Renae Boss Potts, RN

Appendix B

WILLIAMS - WILSON SEXUALITY SURVEY

1. Age
   1. ___ 20 - 24
   2. ___ 25 - 29
   3. ___ 30 – 39
   4. ___ 40 – 49
   5. ___ 50 - 59
   6. ___ 60 and over

2. Gender
   1. ___male
   2. ___ female

3. Basic Nursing Educational Preparation
   1. ___ Associate Degree
   2. ___ Diploma
   3. ___ BSN

4. Highest Degree Completed
   1. ___ Associates Degree
   2. ___ Diploma
   3. ___ BSN
   4. ___ MSN / PhD

5. Primary Area of Practice
   1. ___ Hospital with rehab unit
   2. ___ Hospital without rehab unit
   3. ___ Acute level rehab unit
   4. ___ Sub-acute rehab unit
   5. ___ Long-term care facility
   6. ___ Home health agency
   7. ___ Insurance company
   8. ___ State agency
   9. ___ Private practice
   10. ___ Educational institution
   11. ___ Not currently employed
   12. Other (Specify)_____

6. Present position held
   1. ___ Staff nurse
   2. ___ Nurse manager
   3. ___Staff development educator
   4. ___ Academic educator
   5. ___ Clinical Nurse Specialist
   6. ___ Home health nurse
   7. ___ Insurance related nurse consultant
   8. ___ Nurse Practitioner
   9. ___ Nurse researcher
   10. ___ Retired nurse
   11. ___ Not currently employed
   12. ___ Full-time student
   13. Other (specify) _____

7. Years of experience in rehabilitation
   1. ___ 0 - 2 years
   2. ___ 3 - 5 years
   3. ___ 6 - 10 years
   4. ___ over 10 years

8. Age focus of clinical practice
   1. ___ Pediatric (birth to 16 years)
   2. ___ Adult (17 to 65 years)
   3. ___ Geriatric (over 65 years)
   4. ___ Adult and Geriatric
   5. ___ All age groups

9. Current clinical practice interest

1. ___ Arthritis
2. ___ Brain injury
3. ___ Burns
4. ___ Cardiac
5. ___ General rehabilitation
6. ___ Musculoskeletal
7. ___ Neurological
8. ___ Oncology
9. ___ Pain
10. ___ Pulmonary
11. ___ Spinal cord injury
12. ___ Stroke
13. Other (specify) _____

10. Are you involved in rehabilitation nursing research activities?

1. ___ Yes
2. ___ No

11. Are you working toward a higher degree?

1. ___ Yes
2. ___ No

(If yes, go to question #12. If no, go to question # 13.)

12. What degree are you working toward?

1. ___ BSN
2. ___ MSN
3. ___ DSN
4. Other (specify) _____

13. Are you a member of the American Nurses Association (ANA) or state nurses' association?

1. ___ Yes
2. ___ No

14. In the past two years have you attended a state or national rehabilitation conference?

1. ___ Yes
2. ___ No

15. Have you ever experienced a condition requiring rehabilitation services?

1. ___ Yes
2. ___ No

16. Has a significant other ever experienced a condition requiring rehabilitation services?

1. ___ Yes
2. ___ No

17. Have you or a significant other ever had a disease, condition, or a course of treatment (i.e. surgery, chemotherapy, orthopedic procedures) that has impacted your sexuality?

1. ___ Yes
2. ___ No

****

	Strongly Disagree					Strongly Agree
18. Hospitalized patients do not have the right to lock their doors	1	2	3	4	5	6
19. It upsets or embarrasses me to see spouses or significant others lying in bed with patients	1	2	3	4	5	6
20. Offering sexual counseling is not an integral component of primary nursing care	1	2	3	4	5	6
21. Sexuality is not a major concern for my patients	1	2	3	4	5	6
22. I am not comfortable initiating a discussion of sexuality with my clients	1	2	3	4	5	6
23. I feel discouraged after offering sexual counseling to my patients because it never seems to make a difference	1	2	3	4	5	6
24. A specialist does a better job of discussing sexual concerns with patients than I could possibly do	1	2	3	4	5	6
25. Sexual desire is normally decreased for an individual requiring rehabilitation	1	2	3	4	5	6
26. I have felt uncomfortable in the past when I have interrupted patients engaging in sexual activity	1	2	3	4	5	6
27. Sexual activity is inappropriate under any circumstances while a patient is in the hospital	1	2	3	4	5	6
28. If I had a condition requiring rehabilitation, sex would be the farthest thing from my mind	1	2	3	4	5	6
29. If I had a condition requiring rehabilitation, my sex life would be negatively	1	2	3	4	5	6

****

30. To how many patients and / or their significant others have you offered sexual counseling in the past 6 months?

1. ___ none
2. ___ 1 - 9
3. ___ 10 - 19
4. ___ 20 - 29
5. ___ greater than 30

31. Have you discussed patient sexuality concerns with another nurse in order to plan care for that patient?

1. ___ Yes
2. ___ No

32. Do you include "Potential for Alteration in Sexuality" in your nursing care plans?

1. ___ Yes
2. ___ No

33. Have you discussed with patients their concerns about loss of attractiveness to a sexual partner?

1. ___ Yes
2. ___ No

(If yes go to question #34, if no go to question #35.)

34. Have you continued the discussion with their spouse or significant other?

1. ___ Yes
2. ___ No

35. Have you used any teaching tools or visual aids during a discussion of sexuality with a rehabilitation patient (i.e. penile implants, diagrams of sexual positions etc.)?

1. ___ Yes
2. ___ No

36. Have you discussed alternate positions for intercourse with a rehabilitation patient who is experiencing an alteration in sexuality?

1. ___ Yes
2. ___ No

37. Have you discussed alternatives to "genital to genital" sex with a rehabilitation patient?

1. ___ Yes
2. ___ No

38. If you are caring for a rehabilitation patient who is a known homosexual, have you discussed alterations in sexuality with him / her?

1. ___ Yes
2. ___ No
3. ___ Never cared for a known homosexual patient

(If yes continue to question 39.)

39. Did you continued this discussion with his / her significant other?

1. ___ Yes
2. ___ No

LIST OF REFERENCES

References

Baggs, J. & Karch, A. (1987). Sexual Counseling of women with coronary heart disease. *Heart and Lung, 16*(2), 154-158.

Bartscher, P. W. (1983). Human sexuality and implications for nursing intervention: a format for teaching. *Journal of Nursing Education, (22)*3, 123-127.

Brinks, P. J. (1987). Cultural aspects of sexuality. *Holistic Nursing Practice, (1)*4, 12-20.

Conner, S., Harbour, L., Magers, J., & Watt, J. K., (1994). Behavioral Systems Model. In A. Marriner-Tomey (Ed.), *Nursing theorists and their work* (pp. 231-245). St. Louis: Mosby.

Donohue, J., & Gebhard, P. (1995). The Kinney Institue/Indiana University report on sexuality and spinal cord injury. *Sexuality and Disability, 13*(1), 7-85.

Fawcett, J. J. (1995). Johnson's Behavioral Model. In *analysis and evaluation of conceptual models of n+ursing* (3rd ed.). Philadelphia: F. A. Davis Company.

Gamel, C., Davis, B. & Hengeveld, M., (1993). Nurses provision of teaching and counseling on sexuality: A review of the liturature. *Journal of Advanced Nursing, 18*(8), 1219-1227.

Gamel, C., Hengeveld, M., Davis, B., & Van Der Tweel, I. (1994). Factors that influence the provision of sexual healthcare by Dutch cancer nurses. *International Journal of Nursing Studies 32*(3), 301-314.

Grand Valley State University Kirkhof School of Nursing Thesis Handbook. (1996).

Grubbs, J. (1980). The Behavioral System Model for Nursing. In J. P. Riehl, & C. Roy (Eds.), *Conceptual Models for Nursing Practice* (2nd ed.). (pp. 207-215). Norwalk, CT: Appleton-Century-Crofts.

Heiney, S. P. (1989). Adolescents with cancer: Sexual reproductive issues. *Cancer Nursing, 12*(2), 95-101.

Herson, L., Hart, K., Gordon, M., & Rintala, D. (1999). Identifying and overcoming barriers to providing sexuality information in the clinical setting. *Rehabilitation Nursing 24*(4), 148-151.

Hogan, R. M. (1985). *Human sexuality: A nursing perspective.* Norwalk, Conn.: Appleton-Century-Crofts.

Johnson, D. E. (1980). The Behavioral System Model for Nursing. In J. P. Riehl, & C. Roy (Eds.), *Conceptual Models for Nursing Practice* (2nd ed.). (pp. 207-215). Norwalk, CT: Appleton-Century-Crofts.

Johnson, D. E. (1990). The Behavioral System Model for Nursing. In M. E. Parker (Ed.), *Nursing Theories in Practice.* (pp. 23-33). New York: National League for Nursing.

Kautz, D., Dickey, C. & Stevens, M. N. (1990). Using research to identify why nurses do not meet established sexuality nursing care standards. *Journal of Nursing Quality Assurance, 4*(3), 69-78.

Kuczynski, J. (1980). Nursing and medical students' sexual attitudes and knowledge: curricular applications. *JOGN Nursing, (9)*6, 339-341.

Lewis, S. & Bor, R. (1994). Nurses' knowledge of and attitudes towards sexuality and the relationship of these with nursing practice. *Journal of Advanced Nursing, 20*(2), 251-259.

Loehr, J., Verba, S., & Seguin, R. (1997). Issues of sexuality in older women. *Journal of Women's Health, 6*(4), 451-457.

Maslow, A. (1954*). Motivation and personality.* NY: Harper & Row.

Matocha, L. & Waterhouse, J. (1993). Current Nursing Practice Related to Sexuality. *Research in Nursing and Health, 16,* 371-378.

Medlar, T. & Medlar, J. (1990). Nursing management of sexuality issues. *Journal of Head Trauma Rehabilitation, 5*(2), 46-51.

Newman, J. & Reed, B. (1998). Mexican-American males with a spinal cord injury. *SCI Psychosocial Process, 11*(1), 14-19.

Payne, T. (1976). Sexuality of nurses:correlations of knowledge, attitudes, and behavior. *Nursing Research, 25*(4), 286-292.

Quinn-Krach, P. & Van Hoozer, H. (1988). Sexuality of the aged and the attitudes and knowledge of nursing students. *Journal of Nursing Education, 27*(8), 359-363.

Richards, E., Tepper, M., Whipple, B., & Komisaruk, B. (1997). Women with complete spinal cord injury: A phenomenological study of sexuality and relationship experiences. *Sexuality and Disability, 15*(4), 271-283.

Reive, J. E. (1989). Sexuality and the adult with acquired physical disability. *Nursing Clinics of North America, 24*(1), 267-276.

Roy, J. (1983). A study of knowledge and attitudes of selected nursing students toward human sexuality. *Issues in Health Care of Women, 4,* 127-137.

Shah, H. S. (1991). Nurses' views on sexuality: why, what and how to change. *Journal of Nursing Staff Development, 7*(6), 275-279.

Shuman, N. Bohachick, P. (1987). Nurses' attitudes towards sexual counseling. *Dimensions of Critical Care Nursing, 6*(20), 75-80.

Wall-Haas, C. (1991). Nurses'attitudes toward sexuality in adolescent patients. *Pediatric Nursing, 17*(6), 549-555.

Waterhouse, J & Metcalf, M. (1991). Attitudes toward nurses discussing sexual concerns with patients. *Journal of Advanced Nursing, 16,* 1048-1054.

Webb, C. (1988). A study of nurses' knowledge and attitudes about sexuality in health care. *International Journal of Nursing Studies, 25*(3), 235-244.

Wilkerson, S. A. Loveland-Cherry, C. J. (1996). Johnson's Behavioral System Model. In J. J. Fitzpatrick, & A. L. Whall (Eds.), Conceptual Models of Nursing Analysis and Application (3rd ed.). (pp.89-109). Stamford, CT: Appleton & Lange.

Williams H. A., Wilson, M. E., Hongladarom, G., & McDonell, M. (1986). Nurses' attitudes toward sexuality in cancer patients. *Oncology Nursing Forum, 13*(2), 40-43.

Wilson, M. E., & Williams H. A. (1988). Oncology Nurses' Attitudes and Behaviors Related to Sexuality of Patients with Cancer. *Oncology Nursing Forum, 15*(1), 49-53.

World Health Organization .(1975). Educational and Treatment in Sexuality:the Training of Health Professionals. *Technical Report Series No. 572.* World Health Organization, Geneva.