SEX COUNSELING PROVIDED POST MYOCARDIAL INFARCTION CLIENTS

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CHAPTER I

INTRODUCTION

Throughout his life cycle man finds himself at various points on a health-illness continuum. Sometimes he may need assistance to avoid being overwhelmed by the environment, and/or to cope with adaptation to a new self image. In nursing today, much emphasis is placed on the "totality" of man as an individual who interacts with the biopsychosocial, cultural, and spiritual spheres of his environment. Forces emanating from these spheres play an essential role in molding the sexuality of man.

One expression of human sexuality is the sex role. Sex role satisfaction is an inherent need of man that requires critical consideration, not only because of its complexities, but also because of the intricate relationship that is established between two human beings in achieving sex role satisfaction. Nurses and physicians, in assisting clients, must consider sex role satisfaction as an important aspect of man if they are to render total client care.

Each year at least 800,000 individuals are diagnosed as having had a myocardial infarction. Only recently have members of the medical and nursing professions begun to recognize that sex counseling is an essential and integral part of the cardiac client's plan of care. The plan of care for these clients usually involves such areas as the monitoring of cardiac function, management of elimination, and drug

therapy. Teaching concerning general physical activity is also a part of the plan of care. However, the important question at this point is whether sex counseling should be an explicit component of the teaching regarding physical activity. If so, then it must be determined who is to do the counseling.

Sexuality, as one characteristic of man, is not necessarily excluded from his thoughts during illness, even those illnesses which are life threatening. In order that the client and his sex partner continue to achieve sex role satisfaction following a myocardial infarction, sexual needs must be considered in the overall plan of care. Sexual needs must also be placed in proper perspective for both the client and his sex partner if the nurse and physician are to assist him in reaching his optimum level of functioning as a person.

Statement of the Problem

The problem of this study was to explore the source, content, and adequacy of sex counseling provided clients who have had a myocardial infarction.

Purposes of the Study

The purposes of this study were to:

1. Determine whether or not sex counseling is given to clients post myocardial infarction.
2. Identify the clients' sources of information about sexual activity following myocardial infarction.
3. Identify specific areas of content included in the sex counseling provided clients with myocardial infarction.

4. Determine the appraisal myocardial clients give the sex counseling provided by nurses and physicians.

5. Determine the appraisal myocardial clients give the sex counseling provided by persons other than nurses and physicians.

Background and Significance

Inasmuch as sexuality is an essential part of man, a dimension inherent in his humanness, it is affected by illness, medical procedures and drugs (Hellerstein, et al., 1971: 32, Howard 1973:90, Kass et al., 1972:36, May et al., 1971:181). Myocardial infarction is one illness that has a potential for altering pre-existing patterns of sexual activity and satisfaction, thereby affecting the individual's self concept as an adequate person. Stoller (1968:21) states that ". . . it is clear that sexual satisfaction serves to establish and maintain one's gender identity."

Since sex and sexual functioning are often sensitive or even taboo subjects, clients may be reluctant to ask voluntarily for sex counseling. This does not suggest that clients have resolved all questions they may have regarding sexual activity. Lawson (1974: ICU-1) states that, after the initial crisis of myocardial infarction is past, clients ask two major questions: "Can I go to work again. and "Can I resume sexual activities?" The question concerning resumption of sexual activity, unfortunately, isn't easily handled by either clients or nurses and physicians.

> Patients are often too embarrassed or anxious to ask it directly. Nurses and physicians often seem to compound the problem by their reluctance to talk about sex or unwillingness to acknowledge a connection between sexual activity and acute cardiac illness (Lawson, 1970: ICU-1).

In concurrence with Lawson, Jacobson (1974:50) reveals many reasons why physicians and nurses neglect sexual counseling. These reasons include ignorance, prudishness, lack of educational preparation and the view of family planning facilities serving as a ". . . dumping ground for all questions in the sexual sphere" (Jacobson 1974:50). Bogdonoff, et al., (1971:32) state that discussion of sexual activity between physician and client in physician's offices is minimal. The rationale stated for avoidance of sexual counseling is that ". . . most practicing physicians are products of middle-class American life that predate the current revolution" (Bogdonoff et al., 1971:32).

The need for appropriate information concerning sexual activity for clients with myocardial infarction cannot be denied. In studying behavioral and psychological states of twenty subjects after myocardial infarction, Klein, et al., (1965:148) found that only five subjects had resumed sexual relations. In another study of subjects who had suffered myocardial infarctions one to nine years prior to the study, it was found that only one-third of the male subjects, nearly two-thirds of whom were less than 50 years of age, had received sexual counseling. The remaining subjects characterized the sex counseling they had received as vague or non-specific. Subjects in this case study also reported changes from their preinfarction patterns of sexual activity. The researchers concluded from their interviews that any change in sexual ". . . behavior was based on misinformation and fear. . ." (Tuttle, et al., 1964:140).

In a prospective study of 91 randomly selected subjects, 48 of whom had coronary heart disease and 43 of whom were classified

according to predetermined criteria as highly coronary-prone, findings showed that sexual activity for both groups, when compared at age 25 and 45, was the same. Sexual activity, measured by the number of orgasms per week, decreased with age comparably for both groups from 4.1 orgasms per week at age 25 to 1.9 orgasms per week twenty years later, with a further decrease to 1.6 orgasms per week after the coronary event (Hellerstein and Friedman 1969:78). The decreased frequency of orgasms for 28 subjects (58.3 per cent) was ". . . attributed to 'change in sexual desire' (11 subjects), wife's decision (7), feeling of depression (6), fears (5), coronary symptoms (6)" (Hellerstein and Friedman 1969:81).

Experimental and clinical research has demonstrated favorable results in decreasing physiological and psychological changes in the post myocardial infarction client through individualized activity programs (Haskell 1974:776). Rehabilitation, as defined by Hellerstein and Ford (1957:225), is a process by which a client is returned to his maximum potential of physical, mental, social, vocational and economic well-being. Rehabilitation is considered by Helander and Lavander (1959:304) to be a positive factor in assisting myocardial infarction clients to resume productive lives. In their study of 286 myocardial infarction clients, it was found that, of the 44 clients who had incurred myocardial infarctions, 21 were participating in activities of everyday living, and 23 could be considered virtually incapacitated. It is Helander's contention that, had these individuals been properly rehabilitated, they might have been better able to resume activities of daily living.

Other researchers (Bakker, et al., 1971:28) have demonstrated that individuals with cardiac conditions can safely engage in physical activity. However, appropriate consideration must be given to the severity of the cardiac condition, demands of the physical activity, and physical fitness of the individual.

> Once fitness is determined (by indirectly evaluating maximum oxygen capacity as reflected by heart rate response to exercise), a program can be formulated to improve the patient's fitness so that normal activities, including sexual intercourse, can be performed safely (Green 1975:249).

Sexual counseling should be considered a part of the rehabilitation plan of care. Counseling requires that counselors recognize and be sensitive to the behavior and needs of the individuals concerned (Redman (1972:7). "Advice pertinent to the patient is the key" (Green 1975:257).

Responsibility for counseling post myocardial infarction clients concerning sexual activity does not belong exclusively to the nurse, nor does it belong exclusively to the physician. Sexual counseling is a function of both of these health professionals working in a collaborative relationship with the client and his sex partner. It is the function of the physician to give guidelines for the client's sexual activity. The physician's understanding of the client's pre-infarction sexual patterns is necessary, since they serve to establish guidelines for sexual activity post-infarction (Bogdonoff, et al. 1971:32). If there was a sexual problem prior to the myocardial infarction, marriage counseling may be a referral. The physician should also include the client's sexual partner in the counseling. It is important

to alleviate fears of both the client and the sex partner that intercourse might result in a subsequent myocardial infarction or death (Wenger 1971:32).

> The subject of sudden death during coitus deserves attention because of its great concern to doctors and patients. The Japanese report 0.6 per cent (34 out of 5,559) incidents of death during coitus in cases of endogenous sudden death. Eighteen out of 34 coital deaths were attributable to heart disease with 27 out of 34 deaths occurring during or after extramarital intercourse. Hellerstein, from a personal communication with a coroner, estimated coital death in only three of 500 atherosclerotic heart disease subjects (Green 1975:249).

It is difficult to dismiss coroners' statements that

> . . .acute coronary insufficiency resulting from coitus is a fact, but 'the causal relationship of coitus to sudden death is still a matter of relative probabilities rather than absolute proof' (Green 1975:249).

The nurse, charged with the care of the client, can assist the client, in several ways, to obtain answers to his questions concerning his sexual activity. She can observe whether the client's overt and covert behavior indicates a concern for sound answers to his questions. Accordingly, she can actively plan and disseminate factual sexual information both to the client and his sex partner. The nurse can also assume the role of client advocate, thereby informing the physician of the client's readiness and need for sex counseling (Lawson 1974:ICU-2). Thus, it can be seen that both the nurse and the physician have equal responsibility in counseling the client and the sex partner so that both might be better able to return to satisfying sexual practices.

Definitions of Terms

For the purpose of this study, the following definitions were utilized:

1. Myocardial infarction--an occlusion of one or more of the branches of a coronary artery occluding blood supply to the myocardium, thereby producing an infarct.

2. Infarct--an area of tissue in the myocardium that undergoes necrosis due to a lack of blood supply.

3. Necrosis--death of an area of tissue due to lack of blood supply.

4. Counseling--advice given the client to help him identify his problems, perceive them realistically, and identify possible alternative solutions on the basis of new information.

5. Source--individuals who give audio-visual, verbal and/or written instructions concerning sexual activity.

6. Content--specific information given to the client concerning all aspects of his sexual activity post myocardial infarction.

7. Adequacy--subject's judgment of the level of sufficiency and usefulness of sexual counseling in assisting him to resume his individual practices of sexual function post myocardial infarction.

Limitations

For the purpose of this study, the limitations were:

1. Counselor's competency in sexual counseling and evaluation of the subject's learning from sexual counseling.

2. Appropriateness of the sexual content.

3. Information which the subjects are aware of and are willing to respond to.

4. Subjects' previous experience with sexual education.

5. Subjects' pre-infarction patterns of sexual activity.

6. Subjects' number of sex partners.

7. Subjects' sexual activity, hetero- or homosexual.

8. Subjects' marital status.

9. Subjects' degree of myocardial infarction

Delimitations

For the purpose of this study, the delimitations were:

1. Subjects' hospitalization in a private hospital in a midwestern state.

2. Sexual counseling given between January and July.

3. No other major illness.

4. Results are limited to these specific clients and may not be generalized to any other population.

5. Size of the population of at least 20 subjects.

6. The subjects have a diagnosis of myocardial infarction.

7. The subjects were to be discharged from the hospital.

8. The subjects were to be male.

9. The subjects reside within the city limits of Wichita, Kansas.

10. The subjects have the ability to read and write in English

Assumptions

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

1. Individuals are born with a sexual capacity that responds to stimulation.

2. Human sexuality is a life force with multiple complexities, a part of the total personality of man.

3. Individuals formulate their concept of sexuality from the sociocultural environment.

4. Cultural and/or societal attitudes concerning sexuality control the dispersion of sexual information and patterns of sexual behavior.

5. Factors that affect the individual have the potential for altering pre-existing patterns of sexual activity and satisfaction.

6. Individuals have the right to receive facts and alternatives for decision-making.

7. Learning results in a change of behavior.

8. Health teaching is a function of nursing practice.

9. Clients have learning needs.

10. Altered cardiovascular physiologic function may require modification of life style and environment for optimum cardiac function.

Summary

In order to assist man in reaching his optimum level of functioning, it is necessary to consider his "totality." One sphere of man's totality is his sexuality. Nurses and physicians engaged in assisting myocardial infarction clients cannot ignore this inherent aspect of man. Man's sexual sphere must be placed in proper perspective for both client and sex partner.

The taboos and norms set by society concerning sexual functioning and discussion of the subject can influence the clients to the extent that they may hesitate to seek the information they desire. Nurses and physicians must be cognizant of verbal and non-verbal behavior that indicates a readiness on the part of the client for sexual counseling.

The literature explored reveals that clients with myocardial infarction need sexual counseling. Of the post myocardial infarction subjects interviewed regarding patterns of sexual activity the majority reported changes post myocardial infarction. Rehabilitation of the myocardial infarction client plays an essential role in determining whether or not the individual resumes the quality of life permissible by the altered cardiovascular physiologic function. Sex counseling should be included, for both the client and his sex partner, as part of the rehabilitation program. However, before sexual counseling is initiated a client's sexual history should be obtained. The client's pre-infarction sexual patterns establish guidelines for his sexual activity post-infarction.

A conceptual approach to sexuality and sexual health has been used in the development of Chapter Two. The chapter, a review of the literature has been divided into three areas. In area one the major structure under consideration is sexuality, in area two determinance and in area three rehabilitation.

Chapter Three discusses the procedure for collection and treatment of data. A description of the setting and the population is included. Also included is the method by which the tool utilized in the collection of data was designed, along with a narrative description of the three-part tool. The method of data collection, as well as the treatment of data in percentage form, is discussed, and then a summary statement concludes Chapter Three.

Chapter Four deals specifically with analysis of data. A discussion of grouping procedures is presented along with a discussion

of each group. Chapter Four concludes with findings resulting from the analysis of the data in a summary form.

Chapter Five encompasses four major areas. Area one, a summary, presents a general review of the study and its central concern. Area two includes the conclusions derived at from the analysis of data. Implications, as they relate to nursing practice, nursing education, continuing education, and research, are given consideration in area three. The chapter concludes with recommendations for further study, based on the findings of the study as well as the Review of Literature.

CHAPTER II

REVIEW OF LITERATURE

Introduction

The substructures considered in the presentation of sexuality include the development of femininity and masculinity in a socio-cultural milieu. Area two is a presentation of determinance in which the substructures of theory, biology, and health are considered. Psychoanalytic and psychosocial theories of sexual development are considered as part of the substructure entitled "Theories of Sexuality Development." A summary of the sexual development theories of Sigmund Freud and Erick Erickson is presented. Next, the substructure of biology is an overview of embryology and endocrinology as other gender determinants. Finally, myocardial infarction as a disease process and its influence in sexual functioning is discussed under the substructure of health. Area three is concerned with counseling as a major substructure of rehabilitation. The importance of the sex history is discussed, as well as the nurse's role as a teacher. In addition, the content of sexual counseling for the myocardial infarction client is included.

In an effort to gain comprehension of the complexity of human sexual behavior, it becomes necessary to review it from a multiplicity of perspectives. It is proposed that sexuality is a concept manifested in feminine or masculine behavior and that human sexual behavior, as

part of sexuality, results from psychological, biological, environmental, and social forces. Furthermore, all societies regulate, in varying degrees, both public and private sexual behavior through cultural norms.

Because sexual behavior does not occur in isolation from other components of "humanness," the other factors that affect man have the potential for influencing sexual behavior and they also need to be considered. Occurrences such as illness, disease, treatment, and therapy, have the potential for influencing the sexual behavior of individuals. In addition, factors such as anxiety, stress, and fear, can also alter sexual behavior patterns.

Research on human subjects has been done and is being done, to determine male and female physiological changes during coitus. More important, however, is the evidence indicating the lack of application of the findings of this research to the counseling of clients concerning resumption of sexual functioning after illness and/or diseases.

SEXUALITY

Femininity and Masculinity

Gender identity, the sense of viewing oneself as either female, male, or ambivalent, is one factor that influences the individual's response to attitudes in general as well as to sexual arousal. Gender roles are those acts that the individual performs which attest to himself and to others his perception of his own gender identity.

Influencing the gender differentiation process are a complexity of various, biological, psychological, and social factors (Woods and Mandetta 1975:529).

Being identified as either female or male depends upon where the individual is placed on a femininity-masculinity scale or continuum. Determination of initial placement on the scale begins with biological and physiological determinants. That is, to be called female necessitates having female anatomical structures and glands that produce specific female hormones in appropriate amounts, which then allow for development of secondary female sexual characteristics. To be identified as a male necessitates having genitalia that are structurally different from those of the female and glands that produce male hormones in specific amounts, which allow male secondary sex characteristics to develop. Confusion of placement on the masculinity-femininity scale can occur if there is a bio-physiological development that has misread its developmental code. Confusion of placement, however, is not limited to confused anatomic and endocrine systems (Kaplan 1973:a-12). It can also occur from ". . . confused concepts of masculinity and femininity and the roles the sexes are expected to perform" (Kaplan 1973:8).

Persons do not wake up one day with the realization that they are either boy or girl or ambivalent. Rather there is a process that begins with biological differentiations to which are added subtle, and sometimes not so subtle, social and cultural ascribed roles and restrictions. From the time the gender is known at birth the child is "tagged" as "Boy-Brown" or "Girl-Jones." Parents' and friends'

expressions of "he looks just like his father" or "she looks just like her mother" are subtle expressions which add to gender identity. "Awareness of sexual differentiation precedes that of all other social attribution in the child: He knows himself as a boy or girl long before he learns to associate himself with national, ethnic, religious and other cultural groupings" (Katchadourian and Lunde 1972:4).

However, gender neutering through hair styles, dress fashions, names, jobs, etc., is fashionable and the consequences of this are not fully realized. Theoretically this gender neutering has the potential for increasing flexibility, providing behavioral options, as well as producing uncertainty and ambiguity. "It is most disquieting to contemplate the possibility that the ambiguity of sex roles in our open society might ultimately prove to be almost as hazardous as the rigidities of authoritarianism" (Winick 1969:80).

Femininity

Traditionally the feminine image has been depicted as soft skin, narrow shoulders, soft voice, hip and breast development of sizes generally determined by the culture and time. The dress mode that has been equated with femininity included frills, lace and softness. However, "the world of fashion seems too susceptible to manipulation and the fads of the moment to catch the real spirit of American femininity" (Manton 1968:35).

Traditionally femininity meant being maternal and effective in childbearing. Pregnancy, childbirth, and the ability to breast

feed, were, and may still be, expectations of some males for the females. ("In some primitive societies marriage does not occur until the female proves to be fertile") (Kaplan 1973:10).

With the advent of population control the focus changed to limiting the number of children produced. However, the change has been more in curbing indiscriminate child bearing than in expectation of the female role as a producer (Horton and Hunt 1968:212-232).

Roles generally ascribed to the female are those that evoke images of her as inferior or submissive. These roles have not only affected women's image of themselves; they have also affected the males' image of females as well. "To be feminine has meant to be submissive, weak, gentle, modest, artistic, musical, patient, quiet, and pleasant. Further, she should be chaste (virginal) until marriage, faithful to her husband and passively receptive (uninterested) in sexual intercourse" (kaplan 1973:3). Women, since the early days of suffrage have revolted against this and other ascribed roles. Manton (1968:35) states, "I detect a shift in the average feminine role from a more passive, receptive expressive orientation to a more active and instrumental one."

Sexual expression for women remained repressed until the feminist movement that won for them the political right to vote. Kaplan, (1973:4) states that,

> . . . not only was the political right to vote won, but the social right to enjoy sex. Sexual expression became more widely recognized for women. Still, women were mostly expected to please men. Wives were not expected to be experienced or sexually aggressive. This attitude still persists among many men and women.

The revolution of the working wife has assisted to decelerate her ascribed roles. Traditional patriarchal patterns are decreasing and no longer are men essential for food and shelter. Mudd (1968:37) maintains that the changes women have created for themselves have also placed women in a position where they are ". . . desired and shunned, protected and exploited, loved and feared."

The way in which the female views herself must be acceptable to herself and to society. "Femininity, like sexuality, is an elusive concept and difficult to define. Sexuality depends upon femininity. The quality of characteristics regarded as feminine varies from culture to culture, time to time, and even from family to family" (Kaplan 1973:1). Being feminine entails more than a biological assignment. Culture also plays a major role in defining the parameters of femininity.

Social and world events bring about change in the roles previously ascribed to the female. The way in which society views the male or female contributes to gender and sexual identification. Sexual identification--femaleness or maleness--is the summation of what a society, accepts as being female or male (Wolberg and Kildahl 1970:130-140).

Masculinity

Masculinity, like femininity, has ascribed qualities that are both culturally and socially defined. The term masculine evokes, for the most part, a mental image of a strong, tall, aggressive, and

virile man. The virile male is considered to be ". . . more potent in terms of fertility and procreativeness" (Kaplan 1973:8).

The male child's task is to learn and to incorporate, at various stages of his life, characteristics which the society accepts as being masculine. Wolberg and Kildahl (1970:132) state that, "Identification proceeds at every age and stage. However, there are two particularly crucial periods in the development of one's sexual identification: the years three through five, and the early years of adolescence." The child, be it male or female, can observe at an early age that there is a visual physical difference between his two parents. He can also note the difference in the actions and in the tasks the parents perform. From his observations he concludes that males are more assertive and stronger (Wolberg and Kildahl 1970:132-140).

> The male culture (male superiority) is reinforced by the major religions and cultures of the world. The need for man to perform heavy work, to hunt and fish, and to do the fighting increased his value. His cussednesses were greatly rewarded (Kaplan 1973:9).

To reinforce the role of male superiority, some cultures determine family name, wealth, and social position through male heirs.

This image of superiority is enhanced by the roles the culture expects the male to assume. He is to be the provider, decision-maker, disciplinarian, and the leader in all matters, including sexual expression.

> In the post-Victorian era. . . the husband was expected to determine the time, frequency, and techniques. A 'good' woman was assumed to be less interested, less eager, and more compliant, and was so educated by her family and her culture (Rydman 1970: 39).

Kaplan (1973:9) writes that, "The traditional male believes not only that he is stronger and more aggressive than the female but that he is superior in almost all physical and intellectual abilities."

Because of the belief in male superiority, sexual strength and desires, terms such as "sexual athlete," "Don Juan" and "machismo" have been coined for association with masculinity. "Though he believes, as does the traditional male, that men are endowed with stronger sexual urges and needs than women, he will awaken their sexual interest" (Kaplan 1973:10).

Culturally, the degree of masculinity is measured by the procreative ability of the male. The structural body form--that is, muscle mass, weight and height--is supposed to contribute to his ability to procreate. "Men have been culturally conditioned to believe this is so. Women believe likewise and sometimes pursue athletes and performers who convey this image of masculinity" (Kaplan 1973:10).

Concomitently the male finds himself in a culture that is destroying myths of attributes considered to determine masculinity. "The male-dominated authoritarian family of the past is disappearing" (Rydman 1970:39). Norms and standards of sexual expression are, likewise, undergoing the phenomena of change. The research being conducted on human sexual behavior has done much in dispelling the myth of male sexual superiority and supremacy. Man is now confronted with biological evidence that he is the weaker sex, and as such his mortality rate is generally higher throughout his life cycle. Research has also found that males have more deficiencies and problems in general

behavior and school performance than do females (Kaplan 1973:11). Contemporary social change is strongly challenging the decision-making position once held by the male.

DETERMINANCE

Theories of Sexuality Development

Psychoanalytic Approach

"It should be stated at the onset that there is still no comprehensive, consistent theory of psychosexual development that is generally acceptable" (Katchadourian and Lunde 1972:173). Much of what is known today regarding development of sexual behavior comes from empirical observation of both childhood and adolescent sexual behavior. From this, both constructs and inferences have developed which are highly controversial (Katchadourian and Lunde 1972:173).

Sexuality, states Fonseca (1970:25), is one of the qualities of humanness; a behavior that results from biopsychosocial forces. However, this behavior does not just happen, it develops as the individual develops. "It was Freud who first saw that the patterns of sexual behavior are woven into the very fabric of the personality at a very young age. . .'Sex is not something we do, it's something we are'" (Kogan 1973:2).

Each child has basic instinctual drives of which he is not necessarily conscious. Concomitently the child is a part of the environment. An atmosphere exists between the basic drives of the individual and his environment which necessitates constant negotiations. "From this interplay human personality (and sexuality) results" (Kogan 1973:3).

Freud's libido theory which encompasses five phases of sexuality development provides a conceptual psychoanalytic framework through which sexual development can be examined. "The libido theory was a conceptual scheme that purported to explain the nature and manifestations of the sex drive throughout development" (Katchadourian and Lunde 1972:190). The five phases of development provide the structural components through which theories can be used to explain present and future sexual health and a means by which sexual health can be viewed as an integral part and an outgrowth of life conditions. In this structural approach human needs can be identified and theories of behavior based on response to needs can be formulated. The dynamic purpose of behavior can be viewed as an ongoing process, and the characteristics of human behavior can be examined and interpreted.

Beginning with the Oral Phase, which includes birth through the second year, the individual derives pleasure from such actions as sucking, chewing and biting (Kogan 1973:6, Kaplan 1973:19, Katchadourian and Lunde 1972:191). The oral zone is considered to be the first libidinally pleasurable area in the progressive sequence of psychosexual development. Oral gratification, as well as use of other organs such as eyes, ears, and skin, provide the infant a means of acquainting himself with his environment in addition to a means of deriving pleasure.

The second phase of psychosexual development which encompasses the age range between two and four is called the Anal Phase. This

period of psychosexual development derives its title from the theory that the anus is the erogenous zone (Katchadourian and Lunde 1972: 192). In this phase the emphasis is on bowel function and toilet training. It is a time when the child develops anal muscular control in addition to experiencing the pleasure of evacuation. The consequences and importance of this phase is more fully expanded under Erickson's second stage of personality growth.

The next developmental stage, the Phallic Phase, which occurs between the ages of three and six is a period when the genitals are both an increased concern, and a contribution to libido satisfaction. By this time the individual should have developed gender identity.

During this phase of development the Oedipus and the Electra Complex are purported to occur. Freud contended that the son is in competition with the father for the mother, which leads to the son's fear of castration by the father. Fear of castration then is a motivating factor for the son to give up the erotic attraction for the mother. In the daughter a penis envy develops. Failure of the father to provide a penis and fear of the mother's disapproval lead to a diminishing sexual love for the father (Kogan 1973:11, Wolberg and Kildahl 1970:89, Katchadourian and Lunde 1972:192-93).

At about five years of age the latency phase begins. During this stage sexual impulses become repressed until puberty. A sexual reawakening marks the beginning of the fifth phase, the genital phase. This is the phase in which both biological and physical changes are seen.

> All psychoanalytic formulations start from the assumption that the newborn child is endowed with a certain libidinal 'capital.' Psycho-sexual development is then the process by which this diffuse and labile sexual energy is 'invested' in certain pleasurable zones of the body (mouth, anus, genitals) at successive stages of childhood. The vicissitudes of the libido during psychosexual development determine not only the sexual functioning of the individual but also his entire personality structure and psychological (at times physical) health (Katchadourian and Lunde 1972:191).

Psychosocial Approach

Erik Erikson also developed a schema that encompasses the entire life span of personality development. This schema identifies eight successive psychological states through which man must pass to attain emotional maturity.

> 'How does a healthy person grow or, as it were, accrue from the successive stages of increasing capacity to master life's outer and inner tasks and dangers?' This is the basic question that Erikson set out to answer, and his explorations of human personality growth simultaneously reveal much about the maturity of sexuality (Kogan 1973:4).

The main structures of Erikson's development theory include biological and environmental factors as well as crisis. "Biological features are, of course, the primary 'givens,' but they do not necessarily determine the individual's own definitions of himself as masculine or feminine, or the way he is perceived by others" (Katchadourian and Lunde 1972:208). Essential to fulfillment of biological potentials is the need for both environmental interaction and environmental support. Inherent in this need is the assumption of man's innate capacity for mutual adoption--man to the environment and the environment to man. Crisis--or the critical periods of development--affords the exploration of man's psychosocial development as a decision-making

process, as well as a progressive development, that goes from the simple to the complex.

> Viewed in this light, the child is not simply a miniature adult, just as the sperm is not a tiny fetus. Sexuality is a potential that will develop if permitted and assisted throughout the individual's life span but particularly during the formative years (Katchadourian and Lunde 1972:208).

Through this conceptual approach, human sexual functions can be investigated and theories of sexual development can be proposed. Furthermore, relationships and outcomes involving biological makeup, environmental factors, and psychosocial development throughout the life span, can be demonstrated.

Erikson, using the basic Freudian psychoanalytic concepts, extended and reformulated a theory of psychosexual development (Katchadourian and Lunde 1972:207; Kogan 1973:3; Kaplan 1973:25). He contended that, in order for man to develop a sense of self, of personhood, self-confidence, independence and sexuality, he must test reality and resolve tasks.

> Each of Erikson's eight stages is named according to the task that is confronted. The name identifies both the desirable resolution of the task and the contrary development that takes place if the task is not resolved (Kogan 1972:4).

The first stage, Trust versus Mistrust, introduces the infant into a decision-making process. Depending on his encounter with his maternal care, the child will make the decision as to whether his environment is one that is safe and dependable or one that is frightening and undependable (Wolberg and Kildahl 1970:63). "The infant decision is the product of the ripening relationship between him and his mother" (Kogan 1973:5). If the child has encountered an

environment that is generally safe and trustworthy, he develops a sense of self-esteem. However, if his experience has been generally characterized by anxiety, his behavior will demonstrate fear and mistrust (Wolberg and Kildahl 1970:50-59). During this period, oral pleasure and gratification play an important role in providing the infant a sense of security. This developmental stage is a counterpart to Freud's oral phase (Katchadourian and Lunde 1972:208, Kogan 1073:8).

From the stage of Trust versus Mistrust the individual, from the age of eighteen to thirty-six months, moves into the second state of personality growth. This period, Autonomy versus Shame and Doubt, contains many of Freud's components of the anal phase of psychosexual development. During this stage the individual develops bowel and bladder muscular control and embarks on seeking independence, a process which he continues throughout life. The cultural demands of toilet-training during this stage are considered by Kogan (1973:8) to be extremely important to personality development. Kogan writes,

> Toilet-training must be undertaken in terms of normal stages of bowel and bladder control, in terms of the child's realization of his own accomplishments, and in terms of the psychological growth that is so necessary to self-esteem and future psychosexual development (Kogan 1973:9).

The method and approach to toilet-training can be critical factors in molding adult psychosexual behavior (Kaplan 1973:23, Wolberg and Kildahl 1970:76-71). "In sum, then, intelligent toilet-training is a beginning step toward learning self-control and self-esteem. Without these, the chances for adult psychosexual competence are indeed diminished" (kogan 1973:9).

During this period the child also discovers his gender. He displays exploration of his genitalia and asks a multitude of questions of a sexual nature. The reaction of the parents to his self-exploration and the manner in which they answer his questions will influence his sexual competence in adult life. If the parents respond in a positive manner to the child's handling of his genitalia and answer his questions in a non-detailed but truthful manner, a sense of autonomy and self-worth will develop. Conversely, if the child is made to feel guilty, or if his questions are answered in a shaming manner, he will develop a concept of himself as a person unworthy of love (Wolberg and Kildahl 1970:88, Kogan 1973:10).

> In later years the adult may not clearly remember the parental condemnation of childhood sexuality, but these memories are merely buried in the subconscious. Years later they will often affect his behavior and hinder his ability to have satisfactory sexual relationships (Kogan 1972:10).

Much of Freud's theory content of the phallic phase of psychosexual development is reflected in Erickson's third stage of personality development: Initiative versus Guilt, extends from three to six years of age. The child enters into this stage with a history of security or insecurity, as well as self-control and self-esteem or a feeling of unworthiness and guilt depending upon the parents' past patterns of response to his behavior. During this stage the child experiences emotional ambivalence between loving the parent of the opposite sex and wishing to be like the parent of the same sex. Along with the desire to be like the parent of the same sex an erotic love of the parent of the opposite sex develops (Wolberg and Kildahl 1970:89). Freud labeled this form of love as the Oedipus and Electra

Complex. The child is not only seeking to know and discover more about himself, he is also in the process of attempting to resolve the Oedipus or Electra Complex. If the parent does not assist in a positive manner through this transition period, an increasing sense of guilt may be experienced by the child. "An unwise parental approach to this transient childhood episode can have grievous consequences" (Kogan 1973:11).

After this transitional period the child enters into a phase of sexual disinterest or the stage Freud called the latency period of sexual development. Erickson called this fourth stage of personality development Industry versus Inferiority, which includes the life span of six to twelve years of age. Sexual interests seem to enter a dormant stage, and a period of learning skills that will be useful in later life ensues. If parents demonstrate a merited appreciation for the child's accomplishments a sense of adequacy and respect for his parents will develop. However, if parental indifference is displayed toward the skills learned by the child, inadequacy and inferiority may develop. Prior to this period the child has been engaged in reinforcing his own sense of worthiness. Now entering into a school atmosphere he must learn to give and return love, form friendships and accept responsibility (Wolberg and Kildahl 1970:97-103, Kogan 1972:14-15). "Friendship between school children is a momentous experience, a provision of one of the most profound capacities of the future personality. . . From it can come the love of humanity" (Kogan 1973:15).

Adolescence introduces the individual into the fifth stage of development, which Erickson calls Identity versus Self-diffusion. Anxiety, turmoil, and inconsistent emotions seem to characterize this stage of growth. Biologically the adolescent enters into puberty, the development and maturation of male and female primary and secondary sexual characteristics. Freud described this stage of development as the stage of sexual awakening. Masturbation is not uncommon as a part of the development continuum in which the adolescent searches for identity (Wolberg and Kildahl 1970:104-113). "Without reasonably satisfactory resolutions in the previous four stages--without basic trust, for example--adolescence can be a tribulation. Not identity but identity diffusion may result" (Kogan 1973:17).

Man in his developmental journey toward maturity passes from adolescence into adulthood. The sixth stage of development, Intimacy versus Isolation, is a time of life when the adult person seeks both to give and receive love. If the adult person fails to find intimacy, the consequence is isolation. "The capacity for intimacy then, is a hallmark of earned humanness" (Kogan 1973:22).

The seventh stage of development is Generativity versus Stagnation. Successful accomplishment is said to occur if the person is capable of helping others gain qualities that make for effective living. This stage also includes a period of time when man seeks to create a new generation (Kogan 1973:24).

Concluding Erickson's eight stages of personality development is Integrity versus Despair and Disgust. Throughout the continuum of development man has various tasks to achieve. Development begins

with trust and, if all stages have led to a successful self-image, the process of development will end with trust. However, if he has failed ". . . to adequately resolve the tasks of the developing personality will, . . . fear death" (Kaplan 1973:25). Kaplan (1973) attributes fear of death to incomplete acceptance of the life the individual has lived. "Their despair and disgust is rooted in regret. To them comes the realization that 'the time is now short, too short for the attempt to start another life and to try out alternate roads to integrity'" (Kaplan 1973:25).

Biological Influences on Sexuality

Although embryology and endocrinology are beyond the scope of this paper, an overview in this area is included as part of the phenomenological view of sexuality. Determination of gender identity begins with the sperm. "First, the X or Y chromosome from the sperm determines chromosomal sex (XX, XY, or atypical) which then, contrary to popular belief, has no further direct effect on sexual differentiation" (Woods and Mandetta 1975:530). Once the chromosomal sex is determined the next developmental task of gender differentiation is under the control of undifferentiated fetal gonads. Although the embryo's gonads are undifferentiated at this stage of development, this does not mean that the sex of the individual is undetermined. Gender is determined at the very moment of fertilization (Katchadourian and Lunde 1972:43). Woods and Mandetta (1975) disagree with Katchadourian and Lunde. They state that the undifferentiated fetal gonads will develop into ovaries or testes, but the development of ovaries or

testes does not determine gender. They attribute gender identity to the presence or absence of testicular hormones and the ability of the cells to use the particular hormone. "If the hormones are absent, the fetus will develop the sexual anatomy of a female even if an XY chromosomal pattern exists, as in the androgen-insensitivity syndrome" (Woods and Mandetta 1975:531).

Fetal development encompasses the development of other glands which, depending on the gland, continues to develop long after birth. Of major importance to sexuality are the endocrine sex glands (ovaries and testes) and the pituitary gland. The pituitary gland is also important because of two hormones that stimulate the sex glands: follicle-stimulating hormone (FSH) and luteinizing hormone (LH).

Through both FSH and LH ovarian stimulation the female produces and secretes the female sex hormones estrogen and progesterone. External changes in the outward appearance of the female are noted when the pituitary gland begins to increase its secretion of FSH. This process in turn stimulates production of the female hormones which travel through the blood stream to target tissue such as the breast. The result of this is breast development, and fatty development which changes the contour of supportive tissue in both the hips and buttocks. In addition, estrogens (the female sex hormones produced by the ovaries) influence the growth of the external genitals as well as the internal organs, the uterus and the uterine endometrium. Skeletal growth of both the pelvis and long bones is also influenced by estrogens. During puberty estrogen is secreted in a cyclical pattern which results in menstruation (Guyton 1971:961;971).

The testes, through LH or interstitial-cell-stimulating hormone (ICSH) stimulation, produce and secrete the male sex hormone, testosterone. Testosterone brings about changes in the male genital organs and the larynx. It has an influence on the skeleto-musculature changes the male undergoes during puberty. Generally testosterone is responsible for the characteristics of the masculine body. During this period of growth the germ cells, which lie in the interstices between the seminiferous tubules of the testes, begin to divide and mature into sperm under the influence of FSH and other hormones. Other male organs, such as the prostate, begin to enlarge and produce seminal fluid that can be ejaculated during orgasm. In contrast to the female estrogen cycle, testosterone is consistently secreted by the testes (Guyton 1971:950-957).

Beginning from a union of two cells, one male and one female, the new individual begins a process of gender-identity. At birth the genitalia differentiate whether the newborn will be called girl or boy, followed by further sexual identity throughout the life process. "Sexual behavior depends on more than mere biology. Human sexual destiny is also influenced by environmental factors such as the family and the surrounding society" (Kogan 1972:3).

Myocardial Infarction and Sexual Functioning

Myocardial Infarction

Some of the factors that affect sexual health directly or indirectly are alterations in normal physiological function such as

those that occur in a disease process. However, sexual activity cannot be considered only within the context of the disease process itself. To give consideration to the total spectrum of sexual health, thought must be given to

> . . . and take into account the patient's personality; emotional status; factors that might decrease sexual drive, such as diabetes and other physical conditions; the use of drugs and alcohol; and the patient's sexual patterns prior to the coronary (Jacobson 1974:50).

Health disorders and their consequences require that recognition be given to the effects they can have on the client's sexual health. One such health disorder that comes under the classification of coronary heart disease is myocardial infarction, a manifestation of impaired blood flow to the coronary muscle. The sole blood supply to the myocardium flows through the coronary arteries. "Any significant interference with the flow through these vessels can impair the entire function of the myocardium with dire consequences including sudden death" (Meltzer 1973:1).

Atherosclerosis is considered to be the basic disease process that affects the coronary arteries. Deposits of fatty materials called plaques in the intima of the coronary vessels, cause a narrowing of these vessels. The plaques lead to obstruction and the blood supply becomes insufficient to meet the demands of the myocardium. This condition then can lead to coronary heart disease (Griffith 1971: 80, Luckman and Sorenson 1974:664).

No specific cause for coronary atherosclerosis has been found. However, several etiological theories have been proposed. One theory

considers coronary atherosclerosis a degenerative process related to aging. Another theory relates the development of coronary atherosclerosis to dietary fats, particularly cholesterol (Scheingold and Wagner 1974:75). This causal relationship seems to have some validity in that epidemiologic studies have demonstrated a relationship between dietary patterns of different societies and increases in the incidence of coronary disease before the age of 60. It has also been suggested that the incidence of coronary heart disease is related to stress. Another etiological theory states that hormonal influence, is an underlying basis in age-sex discrepancy, in the incidence of coronary heart disease. Biochemical disturbance has been considered a possible cause of coronary heart disease. Data has demonstrated that there is a higher incidence of coronary heart disease in individuals who have a metabolic disease. Also included in the etiology theories is the influence of heredity (Meltzer 1973:1-3).

While the exact cause of coronary heart disease is unknown, there are characteristics often called "risk factors" which are common to ". . . a higher percentage (but not all) of patients with CHD. . ." (Meltzer 1973:3). These risk factors include:

a) a family history of Coronary heart disease
b) hypertension
c) high serum cholesterol
d) gout
e) diabetes
f) overweight
g) cigarette smoking
h) muscular body build with heavy bones (mesomorph)
i) sedentary existence
j) aggressive competitive personality (Meltzer 1973:3, Luckman and Sorenson 1974:663, Beeson and McDermott 1968:1167).

The clinical manifestations of coronary heart disease can be seen in varying degrees, ranging from unrecognized to symptomatic. When arterial obstruction does not significantly reduce the blood supply to the myocardium, the symptoms generally associated with coronary heart disease may be absent. Thus the condition goes unrecognized by the client and the physician. If collateral circulation develops and/or if the small branches of the coronary arteries enlarge, whereby blood flow continues to be adequate for the needs of the myocardium, no coronary heart disease symptoms develop and the client may be classified as having asymptomatic coronary disease. Asymptomatic coronary disease can occur even though the coronary arteries are grossly narrowed by intimal plaques. "It is the total blood supply to the myocardium, rather than the state of the two main coronary arteries that determine whether or not the disease will be symptomatic" (Meltzer 1973:4).

Impaired circulation to the myocardium manifests itself as steady, short pressure-type pain, generally in the substernum radiating to other parts of the body, such as the left or right arm, neck, jaw, and the upper back. This distinctive type of pain is called angina pectoris. "As a result of the compromised blood supply the amount of oxygen available to the myocardium is reduced; it is this insufficient oxygenation (ischemia) that causes angina pectoris" (Meltzer 1973:4). When the oxygen demands of the myocardium are met, the pain may cease. Rest and nitroglycerin used sublingually may bring about relief of pain (Scheingold and Wagner 1974:76). The action of nitroglycerin is thought to be dilatation of the coronary

vessels resulting in an increase of oxygen supply to the myocardium through increased blood flow (Rodman and Smith 1974:366). Rest is thought to decrease the demand of oxygen to the myocardium, thereby reducing pain. When relief of angina does not occur promptly with rest or nitroglycerin ". . . but continues for 5 to 10 minutes or longer. . ." (Meltzer 1973:6) ischemia is probably present or there is some degree of damage to the heart muscle (Griffith 1971:80). "This type of prolonged angina is described as coronary insufficiency . . . or pre-infarction angina" (Meltzer 1973:6). Acute myocardial infarction, occurs when blood and oxygen supply to a portion of the myocardium ". . . is profound and sustained, the involved cells cannot survive, and local death (necrosis) occurs in this area" (Meltzer 1973:6).

Acute myocardial infarction symptomology varies, but frequently begins with intense continuous chest pain, commonly described by the client as a pressure of heavy weight that radiates to other parts of the body. Following the onset of the substernal pain, profuse perspiration begins. Nausea and vomiting may also be present at this time. Fear and apprehension may be experienced, as well as dyspnea and weakness (Scheingold and Wagner 1974:76, Griffith 1971:85-86; Beeson and McDermott 1968:643;644). This symptom complex of substernal pain, sweating, nausea, vomiting, along with dyspnea and weakness, can be considered the typical history of acute myocardial infarction" (Meltzer 1973:8).

After a myocardial infarction has occurred the heart responds in different ways to the decrease or absence of blood supply to the

myocardium. Variables that seem to determine the heart's response include: the site of the thrombosis; the size of the infarcted area; the amount of blood flow via collateral circulation; and the vessels involved (Beeson and McDermott 1968:643).

If the collateral circulation is such that sufficient blood flow permits the myocardium to function in a normal manner, the heart action may not be impaired and the rate and rhythm can continue undisturbed. However, if the myocardial function is impaired, decreased heart pumping action (heart failure) can occur. If the rate and rhythm are disrupted, arrhythmias can occur. The client may experience, in varying degree, dyspnea and pulmonary edema (Beeson and McDermott 1968:644).

When extensive damage to the myocardium has occurred and the pumping action of the heart is reduced, the left ventricle cannot maintain blood flow to vital organs, and cardiogenic shock can occur (Guyton 1971:343). The symptoms manifested in cardiogenic shock include a drop in blood pressure, an increase in heart rate, a decreased urinary output, and cold, clammy skin (Griffith 1971:87).

> Cardiac shock is extremely important to the clinician because approximately one-tenth of all patients who have severe acute myocardial infarction will die of an ensuing shock syndrome before the physiologic compensatory measures can come into play to save life (Guyton 1971:343).

Following a myocardial infarction a series of morphologic changes occur. During the first twelve hours the heart tissue appears normal, but within twenty-four hours the infarcted area shows signs of anemia and a change of color from red-brown to gray-brown is noted.

Between the second and fourth day the necrotic area is defined and by the tenth day the center of the necrotic area is soft and may show areas of hemorrhage. After this, usually on the tenth day, the necrotic tissue begins to be replaced by gray, fibrous scar tissue. This process of necrotic tissue replacement with fibrous scar tissue continues until the sixth week (Luckmann and Sorenson 1974:669).

The treatment of myocardial infarction will depend upon the clinical manifestations of the disease and the age of the patient. Regardless of the kind of treatment employed

> The goal of cardiovascular nursing for an individual with a known or predicted cardiovascular alteration is restoration, maintenance and promotion of optimum cardiac function and acceptable quality of life (Standards of Cardiovascular Nursing Practice 1975:7).

To meet this goal, nurses begin rehabilitation of the cardiac client with the initial contact. For nurses to assist in the rehabilitation process they must be knowledgeable about the disease process, treatment modalities, expected outcomes and psychological as well as physiological changes that occur. Included as part of the nurses' knowledge should be the physiological cost of sexual activity.

Physiological Cost of Sexual Activity

The review of the literature produced only one research study that measured cardiac response in postcoronary clients during sexual intercourse. For this reason the investigative results obtained by Hellerstein, M.D., and Friedman of Case Western Reserve University in Cleveland are used exclusively as a basis for presenting physiological

cost of sexual intercourse post myocardial infarction. Other literature found relating to this topic used Hellerstein and Friedman's findings as supportive evidence.

The purpose of Hellerstein and Friedman's (1969:71) study was

> . . . to compare the sexual activity of post-coronary and normal highly coronary-prone subjects, to identify some of the modifying factors, to evaluate the physiologic changes (heart rate, electrocardiogram) during daily living activities and during coitus, and thus to provide a sound basis for counseling post coronary subjects.

A population of male subjects (N=91) was randomly selected from participants in the Case Western Reserve University physical fitness evaluation program. Of these 48 subjects had a diagnosis of myocardial infarction, referred to in the study as ASHD subjects and 43 subjects were classified as being highly coronary-prone, referred to in the study as NCP subjects. The data was collected at six-month, and yearly intervals.

The male subjects' cardiac activity was monitored for one or two days with a Halter-type portable electromagnetic tape recorder. In this manner electrocardiograms were continuously tape recorded for 24 to 48 hour periods. "A subsample of 14 subjects engaged in conjugal sexual activity during the monitoring period and their records were analyzed" (Hellerstein and Friedman 1969:72).

The electrocardiograms of the 14 ASHD subjects monitoring for 24 to 48 hours during which sexual activity occurred, it was found that the heart rate during sexual activity corresponded to the phase of orgasm. The four phases of the sexual act were defined as:

"1) Excitement--erotic arousal, associated with foreplay;

2) Plateau--associated with intromission;

3) Orgasm;

4) Resolution" (Hallerstein and Friedman 1969:70).

The corresponding maximal mean heart rate for each phase of orgasm was 117.4, while mean heart rates for minute one and minute two, before the maximal mean heart rate were 87.0 and 101.2 respectively. After the maximal mean heart rate of 117.4 the mean heart rate dropped for minute one to 96.9 and to 85.0 for minute two, respectively. The findings of the heart rate associated with sexual activity were compared with those occurring in other activities within the 24-48 monitoring hours; and bicycle ergometer exercises. The mean maximal heart rate during activities other than sexual was 120.1 for all 14 subjects. Of these six subjects had a maximum heart rate during sexual activity of 127 versus 117 at work, while 8 subjects had a maximum heart rate at sex of 110 versus 120 at work. In comparing the maximal heart rate during sexual activity to the maximal heart rate at work, it was found that subjects engaged in activities such as walking (N=7), climbing stairs (N=4), and paper work (N=2), carried a maximal heart rate of 120 (Hellerstein and Friedman 1969:84).

> The heart rate phenomenon has significance for the cardiac patient because of increased oxygen demand. In addition, some believe that the alkalosis from hyperventilation may aggravate ischemia by reducing the amount and rate of oxygen release secondary to shift of the hemoglobin--oxygen dissociation curve (Green 1975:247).

The oxygen cost, measuring percent of maximal oxygen uptake as determined by bicycle ergometric testing, was 60.3 percent for maximum heart rate and 45.3 percent for the average heart rate.

"The equivalent oxygen cost of the average maximal heart rate during sexual activity is less than that of performing a standard Moster two-step test (22.3 ml. oxygen per minute per Kg. B.W.)" (Hellerstein and Friedman 1969-84). It should be noted that the researchers call attention to two facts: the oxygen cost was a measurement of skeletal muscular exertion rather than oxygen cost from sympathetic nervous system stimulation, and ". . . oxygen uptake during sexual activity has not yet been reported" (Hellerstein and Friedman 1969:72). However, the heart rate during sexual activity has been recorded, and as previously stated ". . . the heart rate is one of the most important determinants of myocardial oxygen needs" (Hellerstein and Friedman 1969:72). Blood pressure was also recorded prior to ergometer exercise and compared to maximal heart rate during sexual activity. The findings were that the average resting systolic (S) pressure was 126.9 and the average resting diastolic (D) pressure was 85.1 mm of mercury, versus the blood pressure of maximal heart rate during intercourse which was (S) 162 and (D) 89 mm of mercury (Hellerstein and Friedman 1969:84).

Sexual Behavior Post Myocardial Infarction

From the conclusions reached by Hellerstein and Friedman (1969), as a result of their clinical research on post myocardial infarction subjects during coitus, come such statements as "Measurement of cardiac pulmonary function during sexual intercourse shows that sex is no more of a strain than brisk walking or climbing a flight of stairs" (Kent 1975:151). Naughton (1971) writes that,

based on the post myocardial infarction subjects' mean response of a heart rate of 120 beats per minute during conjugal coitus, sexual activity requires light to moderate physical effort.

In light of this type of statement it would seem likely that individuals who have experienced myocardial infarctions would have some measure of assurance that sexual activity could, in most instances, be resumed safely. In addition, the level of anxiety over sexual activity post myocardial infarction would be reduced. Yet, "Resumption of sexual activity often evokes more concern in the cardiac patient than resumption of other forms of physical activity" (Scheingold and Wagner 1974:83). Tuttle, (et al., 1964:140) found that of the male subjects in their study, two-thirds had no counseling regarding sexual activity, and the remaining one-third described the counseling received as vague and non-specific. Changes ranging from reduction in frequency of intercourse to permanent impotency were reported by these subjects. A reduction in sexual activity for post myocardial infarction subjects was also reported in Hallerstein and Friedman's (1969:75) study. Klein (et al., 1965:148) in their study found that only five out of twenty subjects had resumed sexual activity. These studies indicate that the sexual activity of a significant number of myocardial infarction clients is changed. It must also be pointed out that the condition--myocardial infarction--can be used as an excuse for changes in sexual behavior, when in fact, sexual problems existed prior to the disease itself.

According to Prinzmetal and Winter (1968:138) "There is no valid reason why the sex act should be avoided simply because the

patient has had a coronary thrombosis; but common sense dictates waiting for complete recovery." Proger (1968:23) in response to the question "What do you tell post-coronary patients regarding sex activity?" states that the answer to such a question should take into consideration the acute and chronic phases of the disorder. During the acute phase, the dangers of sexual intercourse are obvious, but, in the chronic phase, the immediate dangers (extension and sudden death) are no longer present.

> Thus, aside from the particular problem of acute coronary heart disease, and until there is evidence to the contrary, we may assume that the patient fully recovered from a heart attack and without new symptoms may lead a reasonably normal life. Such a life includes sexual activity (Proger 1968:23).

REHABILITATION

Significance of Physical and Emotional Rehabilitation for Sexual Functional Post Cardiac Crisis

Physical and emotional rehabilitation--through exercise, counseling and reduction of anxiety and fear, plays an essential role in assisting the individual to resume sexual functioning post cardiac crisis. The influence of physical fitness on the resumption of sexual activity post myocardial infarction was demonstrated in the Hellerstein and Friedman (1969:94-95) study. As a result of their findings the authors contend that sexual activity post coronary depends on a number of variables, one of which is physical training as part of cardiac rehabilitation. ". . . Naughton has defined cardiac rehabilitation

as 'The process of restoring and maintaining a patient at his optimal physiologic, psychologic, vocational and social status'" (Brammell and Niccoli 1976:239). In order to achieve the goals implied in this definition, cardiac rehabilitation must include both emotional and physical reconditioning.

Although there is a difference between individual magnitude of pathology involved in pre and post myocardial infarction, a common denominator prevails ". . . the profound impact upon the person's image, his attitudes and expectations" (Wolff 1971:61). The person who has lived through a myocardial infarction needs assistance to enter into a modified life style which might, depending upon multiple variables, be temporary or ongoing. The period of rehabilitation is crucial, for it is during this time that the client realizes he is not omnipotent and that he has survived an acute cardiac event. The health team must keep in mind ". . . that any acute cardiac event is a real or potential crisis in the course of one's life and as such is threatening and anxiety producing" (Brammell and Niccoli 1976:225). The realization of death and the wish to continue to survive can produce both fear and anxiety. Those two emotions, not uncommon in the myocardial infarction client, are factors that affect patients pre and post discharge from the hospital. "Fear and anxiety are the factors which interfere the most with the patient's ability to return to work and full community living" (Hall and Alfano 1971:83).

Fear also interferes with the sexual activity of persons who survive a cardiac crisis. The fear of resuming coitus is often based on the misconception that coitus will precipitate another cardiac

crisis and that it might cause death (Kent 1975:151; Green 1975:246). Investigators after measuring cardiopulmonary output of postcoronary clients during coitus ". . . concluded that more than 80 percent of them can resume sexual activity without serious risks" (Kent 1975:151). The clients need to be taught this fact as part of rehabilitation. The phenomena of decreased sexual activity post cardiac crisis seems to be pronounced. Tuttle (1964:140), in studying sexual activity patterns, found that two-thirds of the subjects reported changes in sexual activity post myocardial infarction. The changes were attributed to misinformation and fear. Another study of twenty myocardial infarction subjects reported that, of these, seven had not engaged in coitus, eight had diminished sexual activity, and five had full sexual resumption (Green 1975:246).

Reports such as this indicate that sexual counseling should be an integral part of cardiac rehabilitation. Yet a scarcity of literature exists pertinent to sexual counseling as part of rehabilitation (Green 1975:246; Borgman 1975:19). Naughton (1971:28) maintains that, "If the person's overall rehabilitation is satisfactory, then the sexual life also will return to a satisfactory level."

Counseling with only the client on sexual functioning is not sufficient. The spouse, in many instances, holds the same misconceptions and fears concerning sexual activity post cardiac crisis as does the client. It is equally as important for the sex partner to realize that sexual activity can be safely resumed (Green 1975:251; Wenger 1971:32; Schwab 1971:33 Bakker 1971:33). "Patient happiness and successful re-entry into family dynamics depends greatly on the way in

which he fulfills his sex role and directs his sexuality" (Borgman 1975:19).

Problems such as alteration in sexual functioning after a cardiac crisis usually can be resolved with increased knowledge on the client's part (Baden 1971:563). Realistic reassurance and the concept of gradual progression, as cardiac function improves, needs to be an important aspect of both physical and emotional rehabilitation. "The nurse needs to give a hopeful and realistic appraisal of the future" (Borgman 1975:16). One way a nurse can achieve this is through her teaching role.

Nurses' Teaching Role In Rehabilitation

If the client is to obtain optimal functioning in all spheres, then teaching becomes an integral component of cardiac rehabilitation. Baden (1972:563) writes that, "Patient teaching is a professional responsibility of nurses and one of our most important independent functions." As the client's pain and discomfort begin to subside, he realizes that he is not omnipotent. A sense of loss occurs along with the fear of becoming dependent. Not only is the client faced with the knowledge that he has heart problems, he must also have to adjust to his limitations and/or make modifications from his previous life style. The nurse, through her teaching and support, can assist the client not only to participate in his own care but also to ". . . integrate the illness in his life experience in order to prevent regression or dissociation of the event" (Redman 1972:2).

Redman (1972:3) writes that clients have the need to learn and that the objectives of health teaching are classified by the phase

of health care. In the initial phase health teaching is aimed at such topics as disease, care and treatment, and the health facility itself. In the follow-through phase teaching is aimed at continued rehabilitation and prevention of illness and/or disease. This then implies that teaching of a hospitalized client is a process that begins at admission and continues for the rest of his life (Wenger 1975:129-134; Semmler and Semmler n.d.:609-614), and that "The mainstay of any rehabilitation plan is education of the patient" (Borgman 1975:14).

As early as the middle nineteenth century, leaders in nursing realized the importance of health teaching. They also understood that health cannot be successfully mandated or legislated (Redmand 1972:1). Henderson (1966:15), in the twentieth century, wrote that, "The unique function of the nurse is to assist the individual, sick or well, in the performance of those activities contributing to health or its recovery (or to a peaceful death) that he would perform unaided if he had the necessary strength, will or knowledge. . ." So it seems that teaching is a central structure in the philosophy of nursing.

Underlying the teaching role in the rehabilitative process is the belief that the client should become involved in the teaching and learning process (Redman 1972:9). Wenger (1975:134) in discussing client teaching states that "Effective learning requires participation." The dimensions of nurse-client teaching cannot be realized without incorporation of the client as an active participant. Because "In the final analysis, one must recognize that the patient is the driving force in his own rehabilitation" (German 1972:217).

Authorities in nursing and medicine write that nurses have both the opportunity and the responsibility to involve themselves in client teaching. In Winslow's (1976:213) opinion the nurse, because of her knowledge of the client's diagnosis, treatment, feelings, attitudes, and prognosis, is the best member of the health team to do client teaching. The nurse is with the client twenty-four hours a day. Because of this, she is in a better position than even the physician to understand the client's point of view. The nurse, after making an assessment, can present the information at his level of understanding. In discussing responsibility for teaching, Wenger (1975:129) comments that the physician-client daily contact during hospitalization rarely averages more than ten to twenty minutes. For this reason the responsibility of the educational programs should rest with health-team members who are in contact with the client and the family the remaining part of the day. Each member of the health team has expertise to contribute in the overall plan of care and, as such, each should be considered a contributing member in the teaching process.

Teaching should also include the family, as they experience many of the same fears and anxieties the client does. In addition, the family is a source of emotional support both in the hospital and in the home (Wenger 1975:129-134; Semmler and Semmler n.d.:609; Balden 1972:565; Borgman 1975:16).

Nurses, when engaged in the teaching-learning process, must be cognizant of the principles of learning and teaching. They must also take into consideration the client's state of physical and

emotional health. Clients who have encountered a cardiac crisis might experience both physical and emotional trauma.

In the early phase of cardiac crisis fear, pain, and fatigue are significant components. The ability to learn is decreased when these emotions are present; therefore, only brief simple information should be given in this initial phase (Wenger 1975:131). Baden's (1972:566) findings in the evaluation of a coronary teaching program tend to confirm the influence of the client's physical and emotional status on his capacity for learning. She comments that those clients who had participated in the teaching programs forgot much of the information given to them. "Forgetfulness" was attributed to the emotional trauma evoked by the cardiac crisis.

This transient retention of information implies that nurses should give consideration to repeating previous information. One of Thorndike's "laws" of learning states that the ". . . more times a stimulus-induced response is repeated, the longer it will be retained" (Bigge 1971:54). Wenger (1975:134) emphasizes that repetition of information to the client might be necessary because their level of anxiety tends to decrease his ability to hear and/or if he has heard, he tends to quickly forget.

Readiness for learning should be another of the nurse's considerations in the teaching-learning process. Evaluations for "readiness" to learn and or identification of the stimuli for readiness are impossible to make. "We can only assume that when a person is ready for a new learning, it is because he has developed his ability and interest to the point that he sees the new learning as the next

step for him to make:" (Bigge 1971:285). Important to the core curriculum of cardiac rehabilitation is the physical and mental readiness of the client. Both are necessary for learning to occur (Wenger 1975:130).

In addition to the previously stated considerations, the nurse engaged in client teaching must have a basis from which to begin. In the case of sexual counseling, the sexual history of the client becomes an integral part of the teaching-learning process.

Components of a Sexual History

A sexual history functions as the basis for sexual counseling, since "it provides information about a person's needs, expectations and behavior in his sexual role" (Elder 1970:39). A sexual history identifies areas of needs, problems, and concerns, that individuals may have concerning sexual health. During the history taking, misconceptions concerning sexuality and sexual function can be clarified and questions answered. With the information obtained a comprehensive nursing-care plan can be developed. The plan should include objectives with criteria for measurement, problems, plans of action, and methods for evaluation.

Wahl (n.d. :2) states that, when taking a sexual history, privacy is essential. The attitude of the individual taking the history should be one of candor, ease, and lack of embarrassment. In addition he offers three general principles:

1. Begin with topics that are easiest to discuss and progress to those that are more difficult.

2. Ask about the ways in which the person obtained information concerning sex before asking about the individual's sexual experience.

3. Precede questions concerning sexual experiences with information comments on the universality of behavior relative to the question.

Questions pertaining to the following topics should be included: age of the individual when he first learned about sex and the reproductive process, early concepts of coitus and reproduction to include changes in the original conceptual ideas. Additional questions referring to menstruation, contraception, coital experience, masturbation, homosexuality, paraphilias, and fantasy or experience should also be asked (Wahl n.d.:4, Elder 1970:40).

In reference to masturbation and coital experience the author states that

> . . . with the middle class patient, inquiries about coital experience should follow those on masturbation. It has been observed that patients of lower socioeconomic status generally experience more shock and shame over masturbation than over coitus questions; therefore, this sequence would be reversed in taking the history of such a patient (Wahl n.d.:4).

The guidelines for obtaining a sexual history are aimed at omitting areas that are not pertinent and giving structure to the interview. Within this framework, information to determine the individual's current sexual health can also be obtained. The accumulated data then becomes one of the bases for sexual counseling. Bogdonoff (1971:32), in answering questions on guidelines concerning heart disease and sex, stated that, the physician's understanding of the patient's previous patterns of sexual activity will determine the

guidelines. This type of statement implies the necessity of obtaining a sexual history before sexual counseling can begin.

General Content for Post Myocardial Infarction Sexual Rehabilitation

Once the individual's status of cardiovascular function in relationship to physiological cost has been established and his sexual history has been obtained, sexual counseling can be based on individualistic needs. However, there is general information that can be given to myocardial infarction clients concerning sexual activity in relationship to cardiac function. Included as part of the sexual counseling should be the rationale or basis for statements made concerning sexual activity.

> Only by using that powerful untapped resource--the patient--only by giving him the knowledge and responsibility to care for himself, can we convert our present 'illness care' system to a 'health care' system and assure optimal health to the greatest number of people. The educated patient will prove an able ally (Winslow 1976:213).

The resumption of conjugal sexual activity depends on, but is not limited to, factors such as physiological cost, severity of the disease, and emotional reactions to the experience. Once an assessment has been made of the individual's status of cardiac function, the physician should specify a time when the individual can resume coitus. Ambiguous statements such as "you will be able to tell" or "let's wait and see" only add additional stress and fear. Griep and DePaul (1971:52), in writing about angina pectoris, state that, ". . . shallow and superficial reassurance rarely helps the patient, who innately realizes that his disorder is serious." Not only is the

client left with little reassurance, but he is also placed in a position to draw his own conclusions and make decisions on ambiguity. Fear can also be evoked when inadequate information is given. The energy of this stressful emotion is destructive, in that it can further damage an already injured heart.

> A state of anxiety over an extended period is stressful to all the organ systems and their functions. This is especially pertinent so far as patients with post myocardial infarction are concerned, since we know that their emotional state interferes more with their functioning than does their physical state. Anxiety prepares the individual for fight or flight but in our culture it is brutal to fight and cowardly to flee--so we stew in our juices and cook up malfunction and eventually pathology (Hall and Alfarno 1971:85).

In addition to specifying a time when the individual can resume sexual activity, the physician should specify the relationship between eating and coitus. As part of this information the person must be instructed to avoid coitus for one to three hours after a heavy meal (Semmler and Semmler n.d.:613; Griep and DePaul 1971:50; Friedman and Rosenman 1974:258; Griffith 1973:92). The reason for avoiding coitus after a heavy meal is that large meals, especially in the late evening, might create gaseous distention of the abdomen and this in and of itself can bring about an angina attack (Griep and DePaul 1971:50). In addition to the possibility of precipitating angina, food, through a reflex action, dilates vessels of the alimentary tract which results in a decrease of blood circulation to body parts, including the heart. This action reduces the ability of the heart to tolerate the stress of activity because of decreased oxygen to the organ (Semmler and Semmler n.d.:610).

Alcohol should be avoided (Griffith 1973:92) particularly wine, prior to coitus (Friedman and Rosenman 1974:58). Ingestion of alcohol dilates the blood vessels and increases the heart rate (Semmler and Semmler n.d.:613). With the physiological response of an increased heart rate there is an increased demand for oxygen. Dilation of the blood vessels decreases blood circulation to the heart; therefore, the oxygen demands of the heart cannot be met. "A change in either myocardial oxygen demand or coronary blood flow can cause this oxygen deficit" (Houser 1976:432).

The client has often been cautioned to avoid eating or drinking extremely hot or cold fluids before having intercourse. (Semmler and Semmler n.d.:611). This restriction, according to Houser (1976:432), is unfounded. Prior to this time the advice was given on the assumption that extremely cold fluids could precipitate further myocardial ischemia as a result of vasoconstriction. However, hypothermic, or diagnostic thermodilution techniques ". . . have not caused any significant incidence of myocardial ischemia" (Houser 1976:432).

The assumption has been made that the body response to extreme gastrointestinal thermal conditions will produce body responses similar to extreme external thermal conditions, that is, alterations in oxygen supply or oxygen deficit to the myocardium (Houser 1976:432). There are variables to consider in relationship to the myocardial response to extreme gastrointestinal thermal conditions. One of those variables is activity, and in this particular instance, sexual activity. No studies were found on the effect of internal thermal conditions on

cellular hypoxia during sexual activity. As sexual activity is considered a stressor, the cumulative influence of this activity on physiological mechanisms, in relationship to extreme thermal conditions as it affects myocardial cellular oxygenation, needs to be studied. Until such time, it can be said that, based on Houser's (1976:434) study of myocardial infarction clients under resting conditions, ice water did not significantly alter their cardiac status.

In addition to extreme internal thermal conditions consideration also needs to be given during sexual counseling to extreme external thermal conditions. "Many predisposing factors may contribute to alterations in oxygen demands and coronary blood flow including . . .extremes of thermal conditions" (Houser 1976:432). Semmler and Semmler (n.d.:611) state that thermal conditions such as humidity and heat and other kinds of weather ". . . place stress on the heart by increasing peripheral resistance."

Advice on resuming coitus with the usual sex partner should also be included as part of the sexual counseling.

> . . . studies have indicated that, in an illicit relationship, sexual activity may be much more risky for the patient than that carried out with his usual partner. The measurable physiologic responses, such as heart and respiration rates, as well as blood pressure, are significantly higher (Lawson 1974: ICU-5).

Kent (1975:153) stresses that engaging in coitus with new partners is not advisable.

> There is evidence that the emotional involvement of a new relationship may add to the stress of sexual activity. This is particularly true of extramarital affairs, where there may be guilt as well as excitement (Kent 1975:153).

Research has demonstrated that activity requiring prolonged or vigorous effort of the arms and shoulders ". . . can create a disproportionate work load on the myocardium in relation to total body energy" (Haskell 1974:779). Authors (Haskell 1974:779), Semmler and Semmler n.d.:611) advise that activities requiring use of the arms and shoulders be omitted. If coitus is performed with the male in the top position, use of the arms for supporting his body weight might occur. Positions for coitus that decrease the heart's work load have been suggested by Semmler and Semmler (n.d.:613). These positions include the side-lying position, the face-to-face position, and sitting on a chair.

Howard (1973:89), in presenting the effects of sexual activity in terms of muscular and biochemical responses of hypertensive clients, advises that a rest period should follow coitus '. . . to avoid sudden orthostatic drop in blood pressure upon standing.' He states that the blood pressure of normotensive individuals during coitus might rise ". . . more than 60 to 80 mm. Hg (systolic) and 30 to 40 mm. Hg (diastolic) above the resting pressure" (Howard 1973:88). In the research conducted by Hellerstein and Friedman (1969:78-84) on post coronary subjects, findings were that the blood pressure rose from its initial systolic and diastolic pressures of 130/87 mm. of mercury to 162/89 mm. of mercury at maximal heart rate during sexual activity. There is a discrepancy between Howard (1973) and Hellerstein and Friedman (1969) as to the degree of blood pressure elevation during coitus. However, all three authors reported that an increase of blood pressure occurs during coitus.

Nitroglycerine, because of its enhancement of the overall cardiovascular function, is recommended in coitus as either a prophylactic for those who have in the past experienced angina during coitus, or for relief of angina pain if experienced during the act itself (Semmler and Semmler n.d.:613), Allendorf and Keegan 1975:1170; Howard 1973:88; Wenger 1971:29; Green 1975:1170). Nitroglycerine is one of the most commonly used drugs for relief of angina. "This pain probably is caused by the irritation of the myocardial neural receptors in response to the presence of the acidic byproducts of anaerobic metabolism" (Allendorf and Keegan 1975:1168). In a study, using twenty subjects, conducted by Allendorf and Keegan (1975:1169) it was found that subjects were generally uninformed on basic pathophysiology of angina and on the use of nitroglycerin. For the client to understand the relationship between nitroglycerin and the principle of myocardial oxygen supply and demand, both the physiology of the heart and the pharmocodynamics of nitroglycerine, as well as other aspects of the drug, need to be taught.

Howard (1973:89), in stating guidelines on sexual expenditure for individuals with hypertension, suggests that exertion during sexual activity be considered. One of his suggestions is that a less aggressive role be assumed during coitus by the partner with hypertensive disease. The purpose of this is to reduce the number of physiologic and pathologic problems that might "arise from the expenditure of sexual energies in the presence of significant hypertension" (Howard 1973-82). It was evident in the myocardial infarction subjects who participated in the Hellerstein and Friedman study (1969-84)

that sexual activity increases heart rate, respiration, and blood pressure, all of which influence oxygen demand by the myocardium. Both Doctors Freis's and Gifford's (1973:90) commentaries on Doctor Howard's article refute Howard's (1973) contention that coitus can precipitate cerebrovascular accidents in hypertensive individuals. However, both Freis and Gifford state that they advise "passive intercourse" to clients with coronary disease. Doctor George C. Griffith (1973:91), also commenting on Doctor Howard's article, states that "The thesis and thoughts expressed by Dr. Howard are factual." He goes on to state that sexual counseling should include, among other things, ". . . the role of the patient as a passive recipient" (Griffith 1973:91).

Consideration should also be given to the head and shoulder position during coitus. Howard (1973:90) included as one of his suggestions on sexual expenditure and hypertension, a recommendation to elevate the head of the bed approximately 10 to 14 degrees to reduce sensations of pressure in the chest and neck. The semi-sitting or Semi-Fowlers position, commonly used by patients with respiratory and cardiac conditions, can also be used. The rationale for this includes not only the comfort the position allows the client but also the lowering of the diaphragm which in turn allows for increased lung expansion along with better oxygen and carbon dioxide exchange. Venous return to the heart is decreased which results in a decrease of blood within the pulmonary vessels. The end result is an enhancement of respiratory movement and promotion of cardiac output (Luckmann and Sorenson 1974:670; Furest, Wolff and Weitzel 1974:288). Griep and

DePaul (1971:52), in writing about the therapy for angina pectoris, state that the recumbency position ". . .physiologically increases venus return to the heart and may thereby precipitate an angina attack." Of the 43 myocardial infarction subjects in the Hellerstein and Friedman study (1969:80) 18 subjects (41.9 per cent) indicated they experienced one or more cardiac symptoms during coitus. Tachycardia was experienced by 13 subjects (30.2 percent). Of these 13 subjects, four reported angina pectoris in addition to tachycardia. Nine other subjects (20.9 percent) also experienced angina pectoris. Of these symptomatic subjects 26.7 percent stopped during sexual activity because of the tachycardia and angina pectoris.

The importance of physical and emotional cardiac rehabilitation to the resumption of a meaningful sexual life is supported by research. One essential aspect of this phase of rehabilitation is client teaching. "Patient teaching is the crux of this period. It is interspersed and planned according to the patient's readiness, receptiveness, and interest" (Borgman 1974:18).

Summary

Human sexual behavior, because of its complexity, needs to be viewed from many perspectives. Sexuality, manifested as femininity and masculinity is believed to result from psychologic, biologic, and environmental social forces. All societies regulate, through cultural norms, both public and private sexual behavior. Determination of gender is primarily influenced biologically through hormones, but, because man finds himself in a socio-cultural milieu, these aspects

of the human environment affect and help to formulate the self concept of sexuality.

Both constructs and inferences concerning sexual development have developed from theories of phychosexual development. Freud is credited with being the first individual to advance a theory that sexuality develops as the individual develops. His libido theory, encompassing five phases of development, provides a psychonalytic framework from which to examine sexual behavior. Another framework for explaining personality development was formulated by Erickson. His psychosocial schema, which encompasses eight developmental stages, allows for exploration of man's development through the life span.

Because sexuality is a part of humanness, factors, such as illness, that affect man have the potential for influencing sexual behavior. Myocardial infarction is one such illness that might influence sexual functioning depending upon multiple variables, two of which are physical and emotional health. Physical and emotional rehabilitation play an essential role in assisting the individual to resume sexual function post cardiac crisis. Although research in physiological changes relative to cardiac illness and sexual functioning is lacking, the research that has been conducted demonstrates that sexual activity influences physiological response, and that physical health influences the resumption of coitus post cardiac crisis.

Counseling the client concerning resumption of coitus is also an important part of rehabilitation. In this, because of

ongoing contact with the client, knowledge of the client's physical and emotional health, and educational preparation, the nurse is in a unique position to assume the teaching role. Before counseling can begin, the nurse needs a basis for structuring her teaching. The client's physical ability to resume sexual functioning, theories of the learning-teaching process, and a sexual history, form the needed base. The information that is given the client must include the rationale for the prescription, as this enhances client's compliance with the program. Active participation on the client's part is also essential in the teaching-learning process. The sexual partner of the client needs to be included in the counseling because it has been demonstrated that they have the same fears and anxieties as does the client; therefore, they influence the resumption of sexual activity post cardiac crisis.

CHAPTER III

PROCEDURE FOR COLLECTION AND TREATMENT OF DATA

Introduction

The problem of this study was to explore the source, content, and adequacy of sex counseling provided clients who had a myocardial infarction. Insight into sexual counseling patterns relative to resumption of sexual activity post cardiac crisis was sought through survey and description. No deliberate attempt was made to manipulate variables or control the content presented in the cardiac rehabilitation program in the selected setting.

Description of the Setting

The sample population was obtained in Wichita, Kansas, a city of approximately 300,000 inhabitants. The majority of the citizens of Wichita are employed in the airplane industry and/or in agriculture.

Located within the City of Wichita are four 300 to 700 bed private hospitals and a Veterans Administration hospital. One of the private hospitals served as the setting for this study. The reason for selecting this particular hospital was that the number of clients admitted to its coronary unit, and the number of physicians on staff admitting clients to the unit, is larger than

the other hospitals in the city. This six-hundred-bed medical center provides clinical learning experiences for student nurses, medical students, physicians, and other students in the health related fields.

The department concerned with cardiac care consists of a modern eight-bed "Acute Coronary Unit" where the clients are initially admitted, and a twelve-bed "Intermediate Coronary Unit" which receives the clients from the Acute Coronary Unit. Two different teaching papers are given to the clients admitted to the Intermediate Coronary Unit. One of these papers, which deals with a list of weekly activities was formulated by all the cardiologists on staff at the medical center. The activity list is given to the client the day before dismissal from the medical center and is modified by the private physician according to the client's "seriousness" of myocardial infarction. The other paper, called a "booklet" deals with progression of various physical activities was formulated by the nurses in collaboration with the physicians.

All of the teaching is done by the "Nurse Coordinator" or her designee in her absence. The instructional program consists of films dealing with cardiac physiology, discussion of content presented in the booklet, and dealing with any questions the clients might have. The instructional setting is the Conference Room for group teaching, or the clients' room for individual counseling. The nurses on the unit do informal teaching on a daily basis when needed. Other members

of the health team i.e., the dietician and social worker are also included when information is needed by the client on diet restrictions and availability of community agencies. This instructional program was initiated on February 1, 1976. All of the clients in the sample population have this learning experience.

Description of the Population

The sample population for this study consisted of males who had been hospitalized in the selected private hospital with a diagnosis of myocardial infarction. Deliberate sample selection was the sampling technique used because this method assured that set criteria for sample population would be met.

First permission was obtained from the Nursing Service Administration of the hospital to conduct the study. Then the Cardiovascular Medical Committee, which consists of physicians reviewed the proposal and the Sexual Counseling Measure instrument. Permission to proceed with the study was granted by this committee with two stipulations. The first stipulation was that the individual physician was to be contacted for permission to include his client. The second stipulation was that no subject was to be contacted while hospitalized. Thus the contact for obtaining subject permission was to be made after the client was discharged from the hospital. An additional stipulation was made by the Nursing Service Administrator. The Assistant Nursing Service Administrator was to obtain the names, home addresses, telephone numbers and physicians' names from all clients discharged with the diagnosis of myocardial infarction. She was to include in

the list only those myocardial infarction clients who lived within the city limits of Wichita. The information was to be obtained two days prior to the client's dismissal.

After the list of subjects was reviewed, all the physicians whose names appeared on the list were individually contacted by phone to request their permission to include their clients in the study. If any physician did not give his permission, all of his clients were omitted. Upon receiving permission from the physician, the individual was contacted by telephone if they had one, or by a home visit if they did not have a phone, to explain the reason for the contact, the purpose of the study and the permission obtained from their private physician to contact them for the purpose of inviting them to participate in the study. Only those who agreed to participate and who could read and write English were used as subjects.

The selected sample population consisted of subjects who met the following criteria:

1. Male
2. Hospitalized in the selected private hospital with the diagnoses of myocardial infarction.
3. Discharge from the hospital
4. Physician's consent
5. Able to read and write English
6. Living within the City limits of Wichita

The members of the data-producing sample were told that their names would not be revealed in the study. To guarantee anonymity, they were not to place their names anywhere on the SCM instrument or the SCM envelope.

Description of the Tool

The instrument utilized for data collection was a questionnaire titled Sexual Counseling Measure (SCM), designed for the study, since no appropriate tool was found in the literature. The three-part SCM instrument was constructed utilizing words commonly understood by the general population.

Part I of the SCM instrument, entitled Content, was concerned with determining the sexual counseling content given and with who the counselor was. To obtain this information twelve sex content information questions were asked. Content that was consistently discussed by various authors as information to be included in sexual counseling post cardiac crisis formed the basis for the questions.

The subjects were asked to indicate, by checking the space provided by each question, whether doctors, nurses or others had provided the information. The subjects were also asked to specify the person, in the space provided, if they marked someone other than nurse or doctor as the one who had provided the information. For each closed-ended question the subjects were asked if they had been provided the specified content. As a means of response the subjects were asked to mark either yes or no in the space provided by each question.

Part II of the SCM instrument, entitled Adequacy, was concerned with determining whether or not the sexual counseling given was useful to the subject. To obtain this information, one opinion statement with thirteen subpart closed-ended statements was used.

Content that was consistently discussed in the literature as desirable characteristics and outcomes of the counseling process formed the bases for the adequacy subpart statements. At the right of each opinion subpart statement were spaces marked yes and no. If no sex counseling was given the subject was instructed not to respond to Part II of the instrument, but to respond only to items number 14, 15 and 17 of Part III of the instrument.

Part III of the SCM instrument, entitled Satisfaction, was concerned with determining the subjects' opinion regarding satisfaction with the sexual counseling, as well as determining whether or not a sexual history has been obtained during hospitalization. The opinion of the subjects was also sought on whether or not counseling on sexual functioning after a coronary should be included as part of routine health care. The subjects were asked to respond to these closed-ended questions by marking the degree of agreement which most closely reflected their opinion. A total of four questions, with degree of opinion scales ranging from highly specific to no, and from highly satisfactory to unsatisfactory, and from strongly agree to strongly disagree, comprised Part III of the SCM instrument. The subjects were instructed to select one answer for each of the four responses which most closely reflected their feelings. Only those subjects who had received sexual counseling were to respond to all the statements in Part III. Those subjects who had not received sexual counseling were instructed not to respond to item number 16 of Part III of the SCM instrument.

After the instrument was constructed, a field test was done using eight generic junior and senior nursing students in a university setting. The purpose of this field study was to determine the time it would take to complete the instrument and to evaluate the instrument after completion for clarity of instructions, sequence of items, and clarity of each item. The students were also asked to evaluate the cover letter accompanying the instrument for clarity of the purpose of the study. From the results of this field study it was apparent that the instructions given at the beginning of the instrument were confusing and time consuming. These students' comments consistently pointed this out. It took an average of twenty-eight minutes to complete the instrument. The comments made concerning each item indicated that they were specific and easy to read. As a consequence of the input received from these students, the SCM instrument was revised and the instructions were placed at the beginning of each part of the instrument.

Another field test was conducted using five other convenient junior and senior nursing students at the same university. The same instructions regarding evaluation of the tool were given to these subjects as were given to the first group of student subjects. After analysis of the data and the comments made by the second set of subjects was completed, it was found that the average time spent for completing the instrument was fourteen minutes, that the instructions were clear for each part of the instrument, and that the individual items were clear and easy to read. No comments were made by either the first or second group of student subjects on the sequence of the items.

After these two field tests the SCM instrument was submitted to a panel consisting of two cardiologists practicing in Wichita, Kansas and Betty N. Lawson R.N., M.S. Author, Associate Professor, Director of Intensive Care Programming, Consultant on Organization and Implementation of Coronary Care Training Programs, etc., from Buffalo, New York. The panel was requested to evaluate the items of the instrument for adequacy, accuracy, and format of the instrument. The members of the panel were advised that only the items approved by all members of the panel would be accepted for inclusion in the instrument that was to be implemented at a later date in a pilot and actual study. All of the items were accepted by all three members of the panel as submitted.

The pilot study was conducted using three male post myocardial infarction subjects. A statistician determined that the instrument would provide data which would be appropriate for the research question under the study. The most appropriate data analysis technique for the study was determined to be percentage. In addition, it was found that it took the male post myocardial infarction pilot subjects an average of fifteen minutes to complete the instrument and that they had encountered no problems.

The instrument was then used on the data-producing sample. An introduction to the study, in the form of a letter (Appendix 120) accompanied the SCM instrument. The letter invited the subjects to participate in the study and informed them that their opinions related to sexual counseling were being sought, and that the Sexual Counseling Measure had been developed to record their opinions. The purpose

for the study was included and the subjects were informed that their names would not be revealed. To guarantee anonymity they were requested not to sign their names anywhere on the instrument or SCM envelope, but they were told that the results of the data would be shared with them at their request.

Description of Data Collection

The technique used for collecting data was the measurement method, through the application of the SCM measuring instrument to the respondents. The problem was to explore the source, content, and adequacy of counseling provided clients who had a myocardial infarction. Five purposes for the study were identified. Since no instrument appropriate to the study was found to measure the needs specified in the problem, an instrument was developed. The instrument was administered two times in field tests, then submitted to a panel for review after which a pilot study was done.

Permission was then obtained from both the hospital setting and individual physicians to include their clients in the selected sample population. Those clients who agreed to participate, and who met the criteria, became the data-producing sample. The members of the sample were contacted for consent to conduct the study directly in the home environment, by a telephone call or a direct home visit by the staff employed to administer the measuring instrument.

Two licensed registered nurses with a bachelor of science degree, and graduates of the same university were selected as staff members because of their knowledge of the city, hospital, physicians,

and research methods. Both of these nurses had similar backgrounds in research, i.e., one semester on the nursing research process at the undergraduate level, and one semester of nursing research methodology at the graduate level.

The staff was instructed at the same time to:

1. Obtain daily from the office of the Assistant Administrator of Nursing Service of the selected hospital a list of subjects' name which included their home address, telephone number, and physician's name.
2. Contact the physicians on the list for the purpose of obtaining their permission to include their clients in the sample population.
3. Keep the names of all the physicians contacted and mark "yes" by the names of those who consented to have their clients participate in the study and to mark "no," by the names of those who did not consent to have their clients participate in the study.
4. Contact only those subjects whose physicians had consented to have them participate in the study.
5. Write "yes" by the names of those clients who agreed to participate in the study and to write "no" by the names of those who did not agree to participate.
6. Divide between them the list of yes clients so that each subject was contacted by only one staff member.
7. Introduce themselves by their first and last name, and to state that they were registered nurses.

8. Inform the subjects that their names had been obtained from the hospital.
9. Inform the subjects that their physicians were aware that they were being contacted for the purpose of inviting them to participate in a project that entailed reading and answering seventeen questions on sexual counseling that would take approximately fifteen minutes of their time to complete.
10. Establish an appointment for a home visit convenient to the client.
11. Present to the subjects at the time of the home visit the instrument with a cover letter, an envelope marked SCM, and a plain envelope for him to self-address if he wished to obtain the results of the study.
12. Instruct the subjects to: read the cover letter and the instructions on each part of the instrument; after finishing the tool to fold it, place it in the envelope marked SCM, and seal it.
13. Inform the subjects that questions concerning the instrument could not be discussed prior to or during the administration of the instrument because it might interfere with the results.
14. Direct the subjects to their private physician if the instrument provoked questions, since there was no way to know what information had been received by the subject from the physician and/or other health personnel.

The physician name list served the following purposes: first the staff knew which physicians had been contacted, which prevented recalling the physician, secondly they knew which physicians had given consent to have their clients participate in the study. The marking of a "yes" or "no" by the clients contacted served two purposes: first only those clients who agreed to participate were administered the instrument, and secondly, a tabulation was made to determine the number of the sample population and the number of the data gathering population.

Description of the Treatment of Data

In order to determine the frequency of responses to each closed-ended item, categories were used for a frequency distribution table for each part of the instrument. For Part I of the instrument the nominal distribution table included the categories Yes, No, doctors, nurses and other. Under the category other, the response given by the subjects were written. The responses were tabulated for frequency. For Part II of the instrument the nominal distribution table included the categories Yes and No. The responses were tabulated for frequency. For Part III of the instrument the ordinal distribution table included the categories degree of specificity, degree of satisfaction, and degree of agreement, with the range of degree stated for each category. The responses under each degree, were tabulated for frequency.

A histogram was used to describe the frequency of responses obtained from the tool. Percentages were calculated for all the data for each item of the instrument. A cross-tabulation was made

for comparison of responses between specificity to individual needs, degree of specificity of the sexual counseling, and degree of individual satisfaction with the sexual counseling. A comparison for consistency of responses for each subject was also made between content statement number one of Part I of the instrument and Subpart M, of Part II, of the instrument. A similar comparison for consistency of responses for each subject was made between Question Number Sixteen of Part III of the instrument and Subpart b of Part II of the instrument.

Summary

The survey approach was used for this study. A three part instrument concerned with Content, Adequacy, and Satisfaction was developed. The setting for the study was Wichita, Kansas. A private hospital was used to select the sample. The sample population consisted of males who had been hospitalized for a myocardial infarction, and who met all the other criteria as outlined. Prior to administration of the instrument, two field tests and a pilot study were conducted. The instrument was submitted to a three-member panel which consisted of two cardiologists and a registered nurse with a background in cardiovascular nursing. After revisions were made on the tool a pilot study was conducted.

Two registered nurses administered the instrument in the home setting to the twenty respondents. Analysis was done on the data to determine the frequency of responses for each question under each category. The appropriate data-analysis technique was determined to be percentage.

CHAPTER IV

ANALYSIS OF DATA

Introduction

The purpose of this chapter was to interpret the results of the data obtained in the Content, Adequacy, and Satisfaction questionnaire entitled "Sexual Counseling Measure (SCM). For each part of the SCM instrument the data was placed into categories, then frequency of responses were presented in a numerical manner. Percentages were calculated for each item of the instrument. A cross tabulation was made for comparison and to determine consistency of responses between specific items of the instrument. Histograms were used to describe frequency of responses obtained from specific items of the tool.

Presentation of Data

The data producing sample consisted of twenty subjects discharged from a private hospital between the months of January and July, 1976, with the diagnosis of myocardial infarction. A total of 14 physicians were contacted for permission to have their clients participate in the study; of this number, 9 gave consent and 5 did not give consent.

A sample population of 57 subjects was identified. From this group, 20 were eliminated because of the lack of physicians' consent. A total of 37 clients were contacted. From this group 20 agreed to participate and 17 did not agree to participate. The time span for

collecting the data from the data-producing sample was May, June, and July, 1976.

Part 1 of the SCM instrument was concerned with sexual counseling content and identification of counselors who discussed the content with the subjects. Twelve content items were asked in which the subjects were to check yes or no, and check whether the information was given by doctors, nurses or others. All 20 subjects responded to every content item and identified their source of information when appropriate.

Of the 20 respondents, 19 were counseled as to when they could resume intercourse, while 1 was not. Of the 19 respondents, 4 checked that the information was given to them by both doctors and nurses and 2 checked that they had obtained the information from doctors, nurses, and others. For "others" they specified "booklet" as their source of information (Table 1 and Figure 1.1).

For the item dealing with avoiding intercourse one to three hours after a heavy meal with food and drink 5 of the 20 respondents were given this information, while 15 denied being given the information. Of those receiving the counseling, 4 checked that the information was given to them by the doctors, and 1 respondent checked that the information was given to him by nurses (Table 1).

Three of 20 respondents were counseled by doctors to avoid drinking alcohol, particularly wine, before having intercourse. Seventeen of the respondents checked that they had not received this information from anyone (Table 1).

Four of the subjects were counseled to avoid eating or drinking extreme hot or cold foods or liquids before having intercourse. Of these 4 subjects, 3 identified doctors as their source of information while 1 identified the counselor as nurses. Sixteen of the subjects checked that they were not given instruction on this topic (Table 1).

Of the 20 respondents, 2 were counseled to avoid having intercourse in extreme cold, hot or high humidity places. Of the 2 respondents 1 identified doctors and 1 identified nurses as his source of information. Eighteen of the subjects were not given the content of this topic (Table 1).

None of the respondents had been counseled to have intercourse only with their usual sexual partner(s) (Table 1).

Three of the 20 subjects were counseled to keep their usual sexual pattern(s), but to avoid long or vigorous effort with the arms and shoulders. Of the 3 who were given the information, all 3 identified doctors as their source of information. Seventeen of the subjects checked that they were not given this information (Table 1).

Of 20 respondents, 17 were counseled to rest after intercourse. Three were not given this information. Of those receiving the information, 14 identified the doctors as their source of information; 1 subject identified the nurses as his source of information, while 2 of the 17 subjects identified both doctors and nurses as the source of information (Table 1).

Five of the subjects were told to use nitroglycerine before and/or during intercourse if they had chest discomfort. All 5

subjects who had received this information identified doctors as their source of information. Fifteen of the respondents were not given this information (Table 1).

Of the 20 respondents, 1 subject was counseled by nurses that if he had chest discomfort during intercourse to relax, then continue the activity. Nineteen of the subjects checked they were not given this information (Table 1).

All 20 subjects checked that they were not counseled that the first time they had sexual intercourse to assume the less aggressive role between themselves and their partners (Table 1). Also all 20 of the subjects were not told that elevating the head of the bed 10 to 14 degrees would reduce sensations of pressure in the chest and neck (Table 1).

The data demonstrates that doctors were identified more frequently than nurses as the counseling source. Also, information as to when clients can resume intercourse and to rest after coitus were the two content areas that were provided most frequently. Other content areas were less often provided and/or omitted in the counseling.

TABLE 1

RESPONSES TO CONTENT AND SOURCE OF COUNSEL

Since your hospitalization for a heart attack, have YOU been given any of the following information:	YES	NO	WAS THE INFORMATION GIVEN TO YOU Doctors	Nurses	Others (please specify)	
1. When you could resume intercourse?	95% 19	5% 1	94.73% 18	2.26% 1	2	Booklet
2. To avoid intercourse one to three hours after a heavy meal with food and drink?	25% 5	75% 15	80% 4	20% 1	0	
3. To avoid drinking alcohol, particularly wine, before having intercourse?	15% 3	85% 17	100% 3	0% 0	0 0	
4. To avoid eating or drinking extreme hot or cold foods or liquids before having intercourse?	20% 4	80% 16	75% 3	25% 1	0	
5. To avoid having intercourse in extreme cold, hot or high humidity places?	10% 2	90% 18	50% 1	50% 1	0	
6. To have intercourse only with your usual sexual partner(s)?	0% 0	100% 20	0% 0	0% 0	0	
7. To keep your usual sexual pattern(s) but to avoid long or vigorous effort with the arms and shoulders?	15% 3	85% 17	100% 3	0% 0	0	
8. To rest after intercourse?	85% 17	15% 3	82.35% 14	5.88% 1		
9. That if you have chest discomfort during intercourse to use nitroglycerine before and/or during intercourse?	25% 5	75% 15	100% 5	0% 0		
10. That if you have chest discomfort during intercourse to relax then continue the activity?	5% 1	95% 19	0% 0	1	0	
11. That the first time you have sexual intercourse to assume the less aggressive role between you and your partner?	0% 0	100% 20	0% 0	0% 0	0	
12. That elevating the head of the bed 10 to 14 degrees will reduce sensations of pressure in the chest and neck?	0	20	0	0	0	

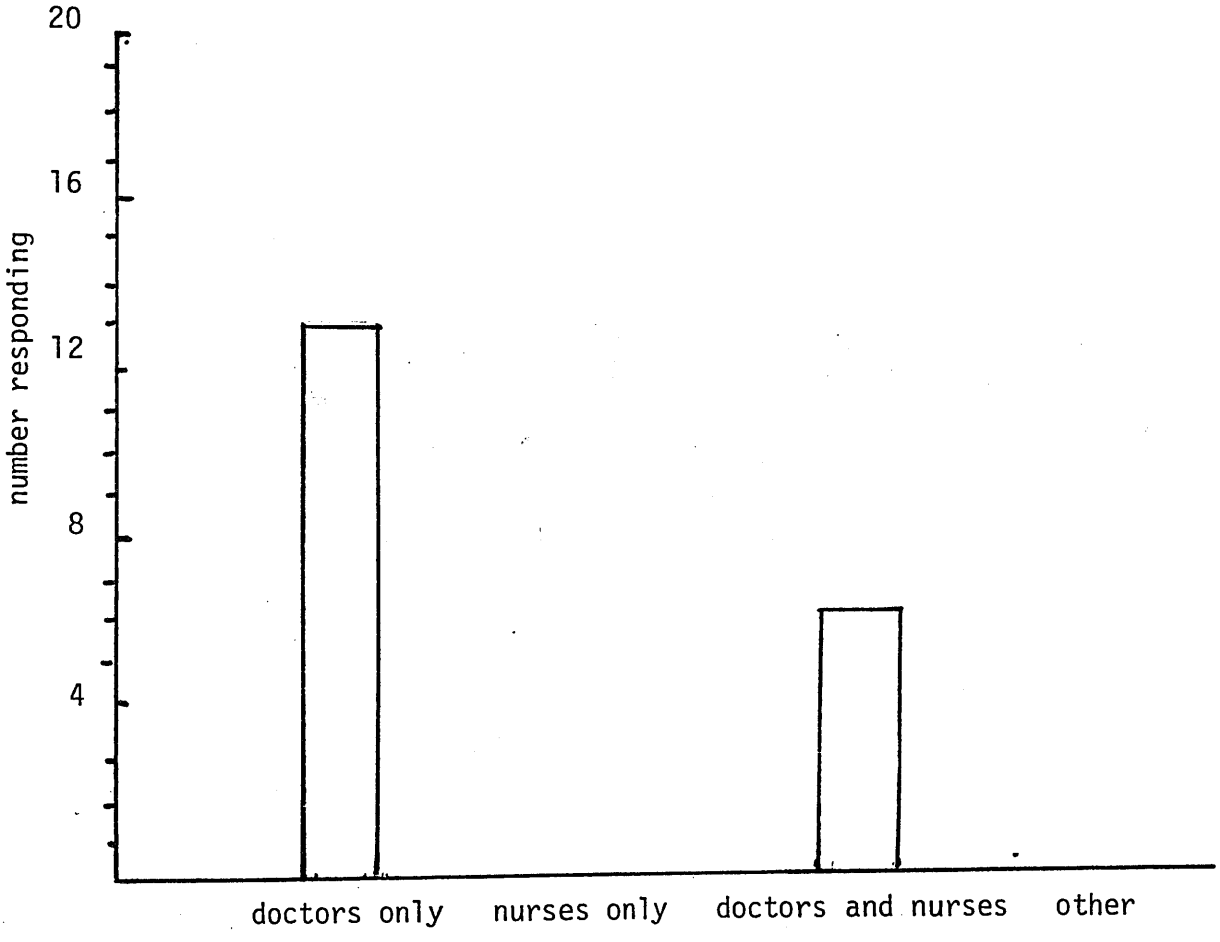

Figure 1.1/ Counseling Sources

Part II of the SCM instrument was concerned with determining whether or not sexual counseling given was or was not useful to the subjects. Subjects were instructed not to respond to this part of the instrument if, in their opinion, no sex counseling was given. Of the 20 subjects, 5 respondents completed Part II of the SCM instrument.

From the results of the data it can be seen that in the opinion of 4 subjects the sexual counseling given was specific to their needs. Of these 4 subjects, 3 indicated that the sexual counseling given was so general it could apply to anyone. The interpretation that can be made from this data is that the 3 subjects perceived some content as being specific in nature, while other content was perceived as being general. One respondent checked that in his opinion, the sex counseling he received was general and not specific to his needs (Table 2).

All 5 subjects felt that the content was presented at a level they could understand. This would imply that the respondents perceived the content presented as being clear and that some degree of knowledge had been arrived at as a result of the counseling (Table 2).

Of the 5 subjects responding to sub-part d and e of Part II of the SCM instrument, 3 had asked for sexual counseling. Of these 3 subjects, 1 respondent checked that sexual counseling was offered to him. Of the two respondents who checked that they had not asked for sexual counseling, sexual counseling was offered to them.

From the data, it can be seen that all 5 subjects received sexual counseling as a result of either requesting the counseling and/or because it was offered to them (Table 2).

Four of the 5 subjects checked that the counselors gave them an opportunity to ask questions; 1 respondent was not given this opportunity. Two of the 4 respondents who were given an opportunity to ask questions, as well as the one subject who was not given an opportunity to ask questions, responded that the counseling they received did not answer questions they had concerning heart problems and sexual activity. Of these 3 subjects, 2 felt that the sexual counseling they received was so general that it could apply to anyone. These responses might imply that even though the subjects asked questions, perhaps the questions were not specific, the questions were not clarified before a reply was given, the answers were not clear and/or the subjects did not ask what they intended to ask (Table 2).

Three of the 5 respondents felt that in their opinion, the sex counseling they received during their hospitalization did not decrease their anxiety over resuming sexual activity. These same subjects also believed that the sexual counseling they received did not prepare them to return to their previous sexual patterns. Two of the respondents checked that the sex counseling decreased their anxiety over resuming sexual activity, and that it had prepared them to return to previous sexual patterns. Both of these subjects also felt that the sex counseling they received during their hospitalization was specific to their needs (Table 2).

Two of the 3 respondents who noted that their anxiety was not decreased by sexual counseling and that it had not prepared them to return to previous sexual patterns, also checked that the counseling was so general it could apply to anyone, as well as being specific to their needs. Only one of the 3 respondents checked that the counseling was general without also checking that it was specific.

From this data, specificity of content as perceived by the individual, seems to have some influence on decreasing anxiety about resuming sexual activity. Also, specificity of content seems to have some influence in preparing the individual to return to his previous sexual pattern(s) (Table 2).

Two of the 5 respondents felt that the sexual counseling they received had not given them an assurance they could resume their past pattern of sexual activity, while 3 subjects felt it had. Two of these three subjects responded that the counseling had not prepared them to return to previous sexual patterns. One of the 3 subjects felt that sexual counseling had assured and prepared him to resume previous sexual patterns. One of the 5 subjects checked that the sexual counseling he received had not given him assurance or prepared him to return to his previous sexual patterns (Table 2).

One of the 5 respondents checked that his sex partner(s) was included in the sex counseling and that it had answered questions for the partner(s) concerning heart problems and sexual activity. Four of the 5 respondents responded that their sex partner(s) were not included in the sex counseling they received during their hospitalization and therefore no questions were answered for them (Table 2).

All 5 of the respondents checked that the sex counseling they received during their hospitalization informed them as to when they could resume sexual activity. A consistency of positive answers was noted for all 5 subjects between Part 1-Item 1, and Part II, Sub-Part m of the SCM instrument (Table 1 and 2). It was expected that if the subjects answered positively to Part I-Item 1, of the SCM instrument, that they would also answer positively to Part II, Sub Part m of the SCM instrument because both Item I and Item Sub-Part m were identical.

Part III of the SCM instrument was concerned with determining the opinion of the subjects regarding satisfaction with the sexual counseling. The subjects were instructed to select the response that most closely reflected their feelings. Additionally, the subjects were instructed not to respond to Item 16 of Part III of the SCM instrument if they had not responded to Item 13 of Part II of the SCM instrument. However, of the 15 respondents who did not answer item 13, 11 answered item 16. The responses of these 11 subjects to item 16 were tabulated separately from the 5 subjects who completed Part II of the SCM instrument.

Of the 20 respondents, 1 subject checked that in his opinion the sexual history obtained was mildly specific. Ten subjects felt that the sexual history was non-specific, while 9 subjects checked that no sexual history was obtained. The interpretation from this data is that for 9 subjects, sexual counseling was not based on knowledge of the client's own sexual behavior. For 11 subjects the sexual counseling was based on non-specific or mildly specific knowledge of the client's own sexual behavior (Table 3 and Figure 1.2).

TABLE 2

RESPONSES CONCERNED WITH ADEQUACY

OF SEXUAL COUNSELING

13. In my opinion the sex counseling I received during this hospitalization:	YES	NO
a. Was specific to my needs	4	1
b. Was so general that it could apply to anyone	4	1
c. Was presented so that I could understand	5	0
d. Was asked for by me	3	2
e. Was offered to me	3	2
f. Gave me an opportunity to ask questions	4	1
g. Included my sex partner(s)	1	4
h. Decreased my anxiety over resuming sexual activity	2	3
i. Has given me assurance that I can resume my past pattern of sexual activity	3	2
j. Has prepared me to return to my previous sexual patterns	2	3
k. Has answered questions I had concerning heart problems and sexual activity	2	3
l. Has answered questions for my sex partner(s) concerning heart problems and sexual activity	1	4
m. Has informed me as to when I can resume sexual activity	5	0

*Only 5 subjects responded to Part II of the SCM Instrument.

From the data it can be seen that of 20 respondents, 1 subject received sexual counseling highly specific during his hospitalization and 2 subjects checked that it was moderately specific. One subject checked that the sexual counseling he received was mildly specific, while 11 subjects felt that it was non-specific. Five subjects checked that they had received no sexual counseling (Table 3 and Figure 1.3).

Two of the five respondents rated the sex counseling they received during their hospitalization as highly satisfactory, while 1 subject rated it as moderately satisfactory. Two of the five respondents rated the sex counseling as mildly satisfactory. None of the 5 respondents rated the sexual counseling as unsatisfactory (Table 3 and Figure 1.4).

The subjects were instructed not to respond to Item 16-Part III of the SCM instrument if they had not responded to Part II of the SCM Tool. However, 11 subjects who did not respond to Part II of the SCM instrument, did respond to Item 16 of Part III of the SCM tool. The interpretation for the response to this item by the 11 subjects might be that the subjects forgot the instructions because the instructions were too far removed, the instructions were not clearly stated and/or the subjects associated Item 16 to Part I of the SCM Instrument dealing with Content. Of the 11 subjects, 2 rated the sex counseling as mildly satisfactory, and 9 rated it as unsatisfactory (Table 3 and Figure 1.4).

From analysis of the data 2 subjects strongly agree that counseling on sexual functioning after a coronary should be included as

part of routine health care, while 16 subjects agree with reservations. Two subjects disagreed with reservations, but none of the 20 subjects strongly disagreed to have counseling on sexual functioning included as part of routine health care after a coronary (Table 3 and Figure 1.5).

Four of the 5 subjects felt that the sex counseling was specific to their needs. One subject felt that it was not. Of the 5 subjects only 1 responded that the sexual counseling he received during his hospitalization was highly specific. Two subjects felt that the sexual counseling was moderately specific, one felt it was mildly specific, and one felt it was non-specific. It was expected that if the respondents checked that the sexual counseling was specific to their needs, that they would check the level of specificity as either being high or moderate. This expectation occurred from 3 subjects. For the other 2 subjects, it might be that although the counseling was perceived by them as only being mildly or non-specific, it was still specific enough to meet their individual needs (Table 4).

TABLE 3

RESPONSES TO DEGREE OF SPECIFICITY OF SEXUAL HISTORY AND SEXUAL COUNSELING: DEGREE OF SATISFACTION WITH SEX COUNSELING AND DEGREE OF RECOMMENDATION OF SEXUAL COUNSELING

14. In my opinion the sexual history obtained from me during this hospitalization was:

a.	highly specific	0 - 0%
b.	moderately specific	0 - 0%
c.	mildly specific	1 - 5%
d.	non-specific	10 -50%
e.	no sex history was taken	9 -45%

Number of Responses to Degree of Specificity of History Obtained.

15. In my opinion the sexual counseling I received during this hospitalization was:

a.	highly specific	1- 5%
b.	moderately specific	2- 10%
c.	mildly specific	1- 5%
d.	non-specific	11- 55%
e.	no sex counseling was given	5- 25%

Number of Responses to Degree of Specificity of Sexual Counseling Received

16. I rate the sex counseling I received during this hospitalization as:

a.	highly satisfactory	2	0	(No of responses
b.	moderately satisfactory	1	0	of 11 subjects
c.	mildly satisfactory	2	2	who did <u>not</u> complete
d.	unsatisfactory	0	9	Part II of the SCM tool.

Number of Responses of 5 subjects who completed Part II of SCM tool.

17. Counseling on sexual functioning after a coronary should be included as part of routine health care:

a.	strongly agree	2 - 10%
b.	agree with reservations	16 - 80%
c.	disagree with reservations	2 - 10%
d.	strongly disagree	0 - 0%

Number of Responses to Agreement of Including Counseling on Sexual Functioning Post infarction.

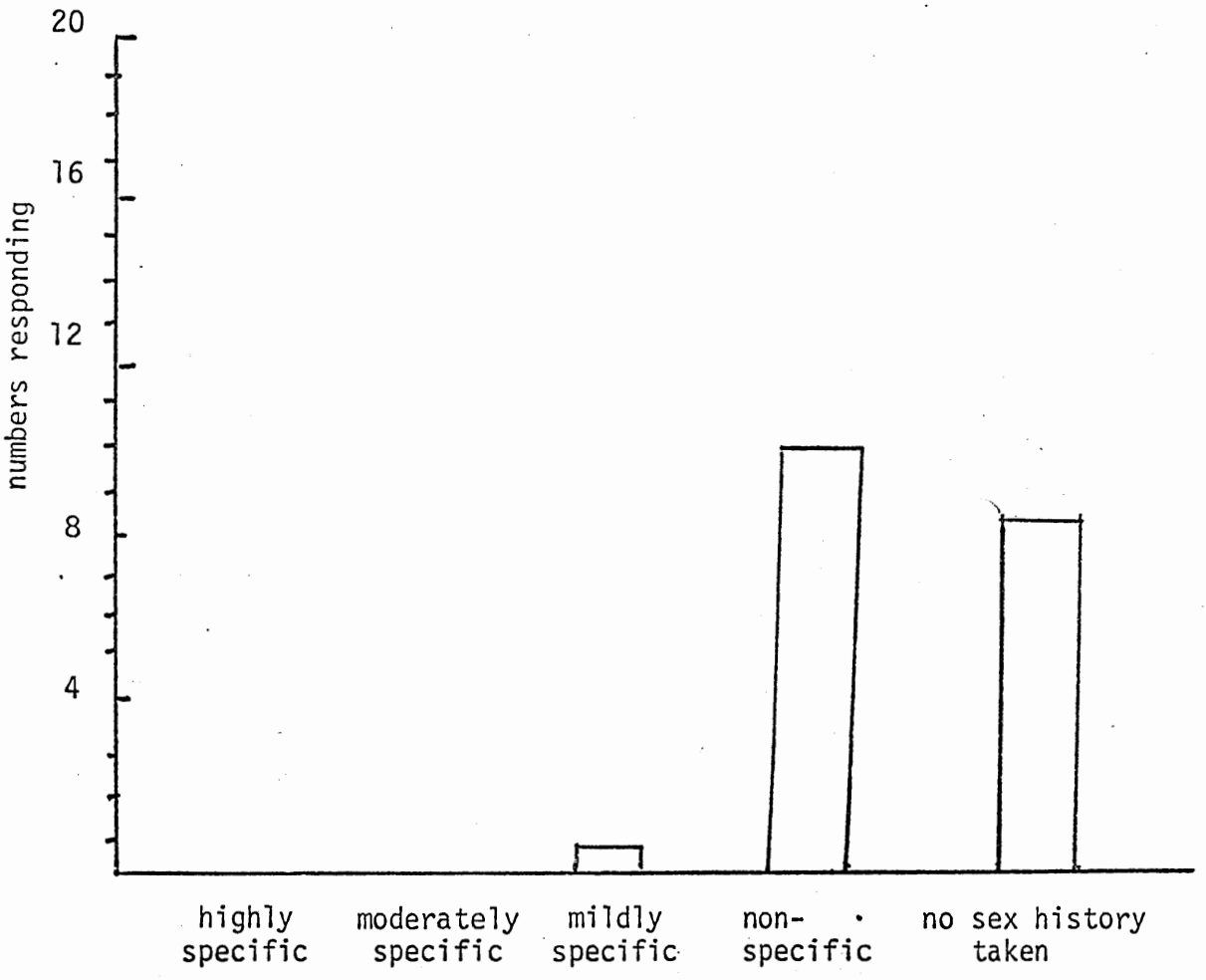

Figure 1.2/ Specificity of Sexual History

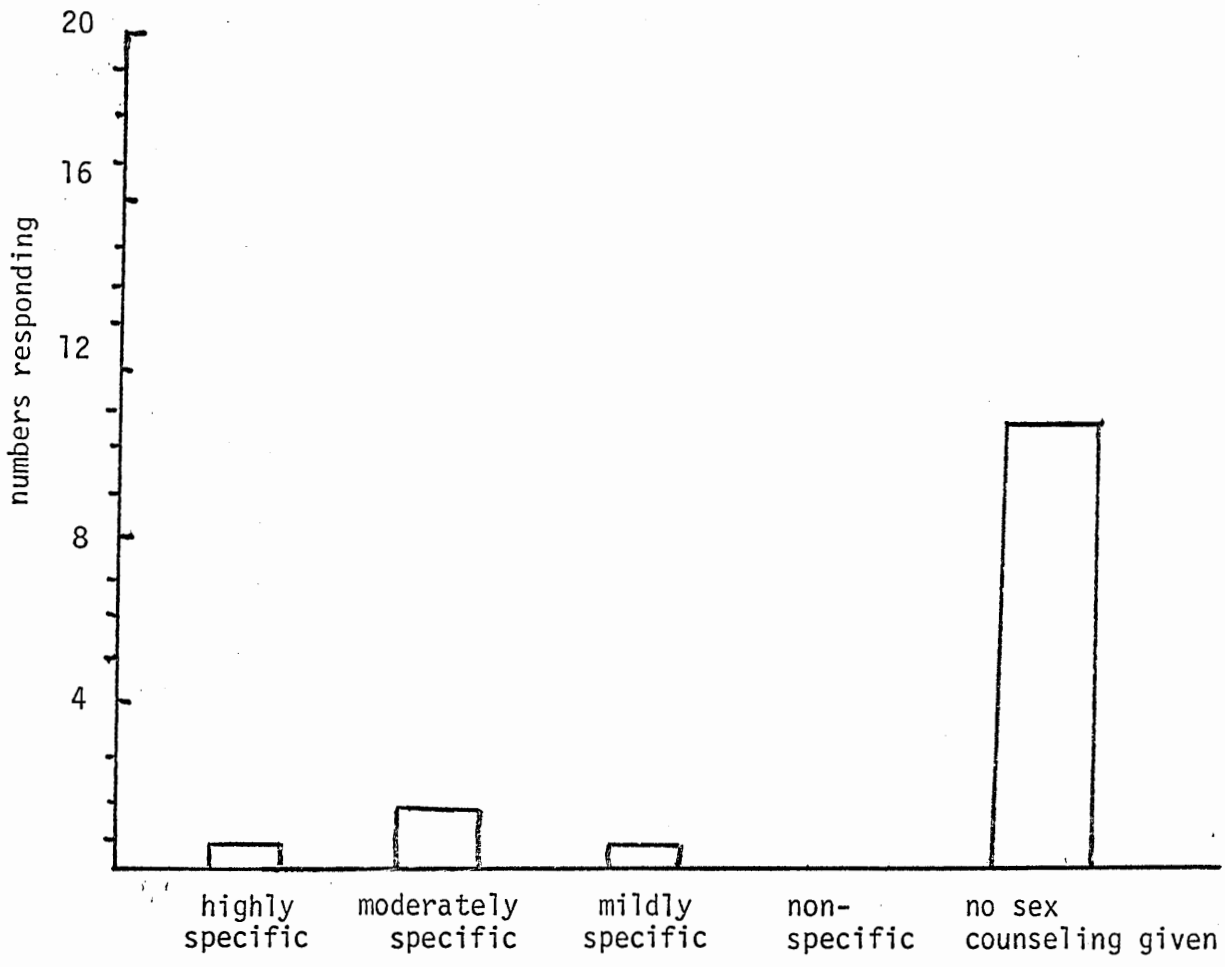

Figure 1.3/ Specificity of Sexual Counseling

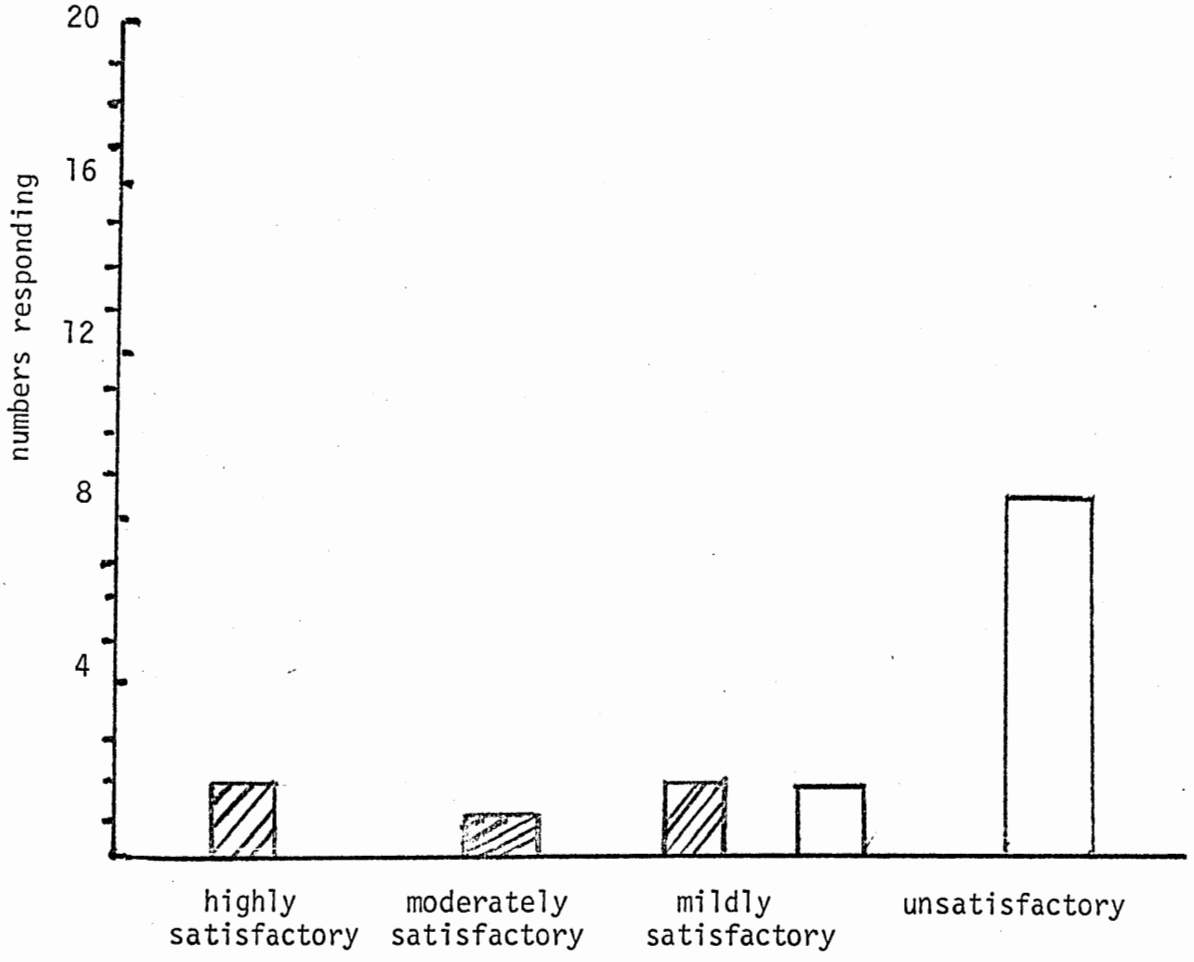

Figure 1.4/ Satisfaction With Sex Counseling

Responses of 5 Subjects

Responses of 11 Subjects

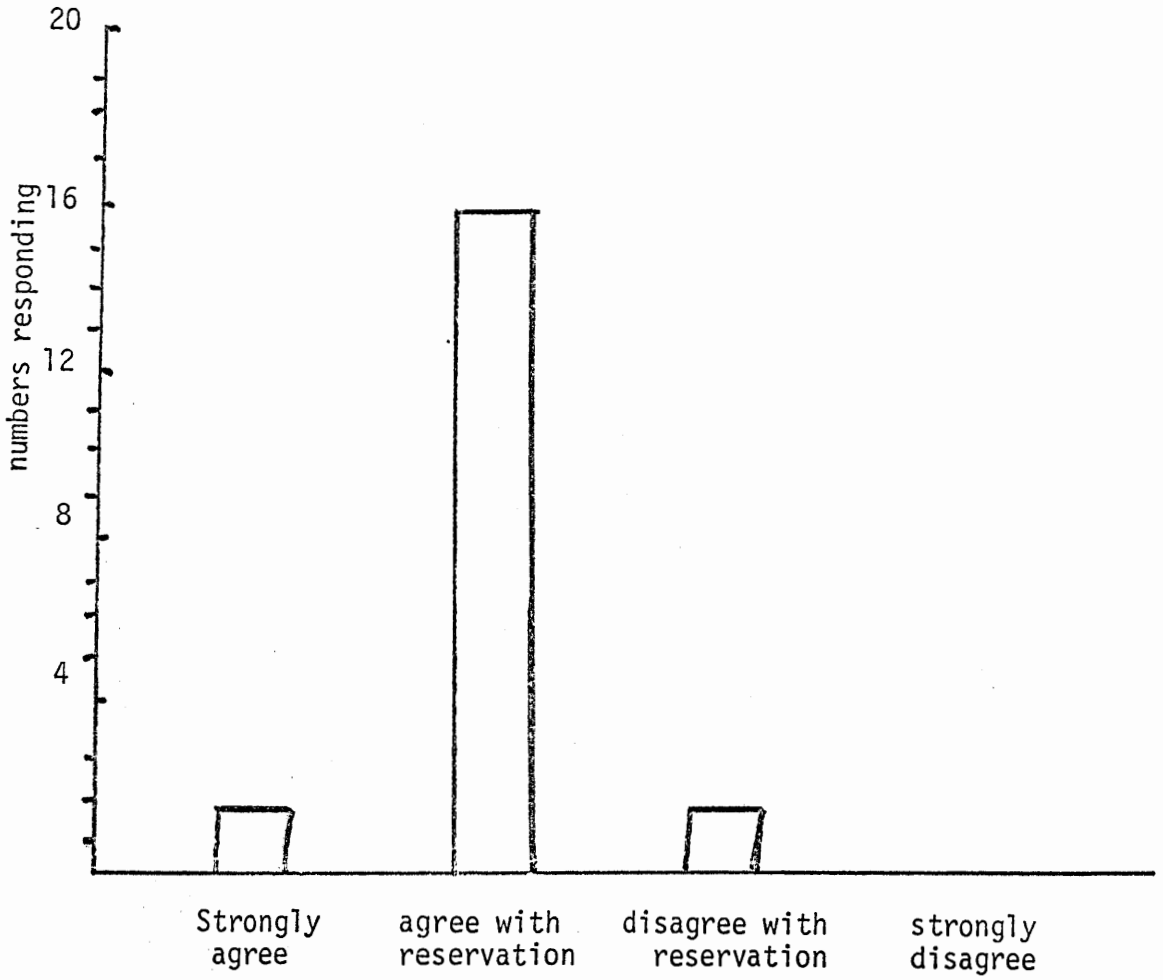

Figure 1.5/ Recommendations of Sex Counseling

TABLE 4

SPECIFICITY OF SEXUAL COUNSELING TO INDIVIDUAL NEEDS

AND DEGREE OF SPECIFICITY OF SEXUAL COUNSELING

Respondent Number	Specificity to Individual Needs	Degrees of Specificity of Sexual Counseling			
		Highly	Moderately	Mildly	Non
1	+			+	
2	+				+
3	+	+			
4	+		+		
5	-		+		

*+ is a "yes" answer
- is a "no" answer
Tabulations were made for only the responses of the 5 subjects who completed Part II of the SCM Instrument.

One subject felt that the sex counseling was highly specific and highly satisfactory. It was expected that the subjects who checked moderately specific would also check moderately satisfactory, those who checked mildly specific would check mildly satisfactory, and those who checked non-specific would check unsatisfactory. However, as demonstrated by the results this expectation did not occur (Table 5).

TABLE 5

SPECIFICITY OF SEXUAL COUNSELING, AND DEGREE

OF SATISFACTION WITH SEX COUNSELING

Respondent Number	Degree of Specificity				Degree of Satisfaction			
	Highly	Moderately	Mildly	Non	Highly	Moder-ately	Mildly	Unsatis-factory
1		+					+	
2		+			+			
3	+				+			
4				+			+	
5			+			+		

*+ is a "yes answer
- is a "no" answer
Only the responses of the 5 subjects who completed Part II of the SCM instrument are included in this tabulation.

Four of the 5 subjects checked that the sex counseling was so general that it could apply to anyone. It was expected that those subjects who evaluated the counseling as being general would check their degree of satisfaction as being mild or unsatisfactory. As demonstrated by the results this expectation did not occur (Table 6).

The data demonstrates that sexual historys were either non-specific (N = 10), and or not obtained (N = 9). Also, the sexual counseling was rated as non-specific by 11 subjects, while (N = 5) checked that no sex counseling was given. The sex counseling was rated as highly satisfactory (N = 2), moderately satisfactory (N = 1), mildly satisfactory (N = 4), and unsatisfactory (N = 9). On the item of including counseling on sexual functioning as part of routine care 2 subjects strongly agreed, 16 agreed with reservations and 2 disagreed with reservations and none strongly disagreed. (Table 6).

TABLE 6

"GENERALITY OF SEX COUNSELING" AND "DEGREE OF SATISFACTION WITH SEX COUNSELING"

Respondent Number	Generality of Sex Counseling	Degree of Satisfaction			
		Highly	Moderately	Mildly	Unsatis-factory
1	+		+		
2	+			+	
3	+	+			
4	+	+			
5	-			-	

*+ is a "yes" answer
- is a "no" answer
The only responses that were tabulated were those of the 5 subjects who completed Part II of the SCM instrument.

Summary

One of the purposes of this study was to determine whether or not sex counseling was given to clients post myocardial infarction. Of the twenty subjects of this study, one subject had not received any of the content specified in Part One of the Sexual Counseling Measure. Additionally, fourteen other clients did not answer Part Two of the SCM instrument. Only five subjects felt they had received sex counseling.

The second purpose of the study was to identify the client's source of information concerning sexual activity following a myocardial infarction. From analysis of the data, it can be seen that of the nineteen subjects who checked affirmative replies to Part One items of

the SCM instrument thirteen (sixty-eight percent) subjects identified doctors as being the ones who had provided the sexual counseling. Six (thirty-one percent) subjects identified both doctors and nurses as being their source of sexual counseling. Only two subjects identified that they had received counseling from doctors, nurses, and "others." For "others," both of the subjects specified "booklet" as the source of information under the category of "other."

Another purpose of this study was to identify specific areas of content included in the sex counseling provided clients with myocardial infarction. From analysis of the data of Part One of the SCM instrument it can be seen that Item One, dealing with informing the subject when they can resume intercourse, and Item Eight dealing with rest after intercourse were the most frequently included areas of content. Other areas of content identified in Part One of the SCM instrument were either less frequently included or totally omitted.

The fourth purpose of this study was to determine the appraisal myocardial clients gave the sex counseling provided by nurses and physicians. Of the five subjects who answered Part Two of the SCM instrument, two subjects rated the sex counseling as highly satisfactory, one moderately satisfactory and two mildly satisfactory. Of the eleven subjects who did not answer Part Two of the SCM instrument, nine subjects rated the counseling as unsatisfactory, and two rated it as mildly satisfactory.

The fifth purpose of the study was to determine the appraisal

myocardial clients gave the sex counseling provided by persons other than nurses and physicians. Since the subjects did not identify any other person as counselors, the fifth purpose of this study was not accomplished.

CHAPTER V

SUMMARY, RECOMMENDATIONS, IMPLICATIONS, AND CONCLUSIONS

Introduction

This study was designed to explore the source, content, and adequacy of sex counseling provided to clients who have had a myocardial infarction. The central concerns of this study were to determine, by means of a questionnaire, the sexual counseling content provided to myocardial infarction clients, the identity of the counselors who provided the content, and the usefulness of the sexual counseling provided to the subjects. In addition to this, the study was also concerned with determining the subjects' degree of satisfaction with the sexual counseling received, the degree of specificity of the sexual counseling given, the advisability of including counseling on sexual functioning after a myocardial infarction as part of routine health care, and the degree of specificity of a sexual history, if one was obtained during the hospitalization. From the results of the data, it was possible to answer the concerns of this study. Additionally, the preceding chapters lead to important conclusions and implications in the areas of client teaching, nursing education, continuing education, and human research on cardiac functioning during coitus post myocardial infarction.

Summary

To answer the research question under study, the survey approach was used. The setting of the study was the cardiac unit of a private hospital in Wichita, Kansas. The method of deliberate sample selection was the process used to assure a sample population with the desired element of myocardial infarction. The data-producing sample consisted of subjects from the sample population who met the criteria and who agreed to participate. To obtain the data needed to answer the question under study, a three-part instrument was designed. Prior to administering the instrument to the data-producing sample, two field studies were done. The instrument was then submitted to a panel consisting of two cardiologists and a registered nurse. Following the panel's review a pilot test was done. A staff consisting of two registered nurses, were oriented to select the subjects and administer the tool. The subjects in the data-producing sample were contacted in the home setting and were introduced more fully to the nature and purpose of the study by a letter attached to the instrument. The staff members waited while the subjects completed the instrument.

A frequency distribution table was used for each part of the instrument to determine the frequency of response to each close-ended item. A nominal distribution table was used for Parts I and II of the instrument, while an ordinal distribution table was used for Part III. In this manner, every response was placed in the proper category in a systematic and logical fashion. Percentages were

calculated, and cross-tabulations were made between specific content items. To describe the frequency of response for specific categories of Parts I and III of the instruments, use was made of histograms.

From the summary of the data it was determined that sex counseling was given to 5 (25 percent) of the clients, while 15 (75 percent) of the clients felt that they had not received sex counseling post myocardial infarction. Physicians were identified by 11 (57 percent) subjects as their source of counsel. Seven (36 percent) clients identified both physicians and nurses as the sources who provided the sexual counseling. The areas of content most frequently provided included those dealing with informing the client that they could resume intercourse and to rest after intercourse. The more personal content areas were less frequently included or totally omitted.

The 5 subjects who received counseling rated the sex counseling as highly satisfactory (N=2). The 11 subjects who felt they had not received sex counseling rated the counseling as unsatisfactory (N=9) and mildly satisfactory (N=2). Since no other persons were identified as having provided sex counseling the fifth purpose of the study was not accomplished.

Conclusions

Analysis of the data indicates that some specific information was given to the client through sexual counseling. However, the specific content that was included dealt with the topics of food and drink, nitroglycerine, rest, avoiding extreme thermal conditions

with foods and liquids, and resumption of sexual activity. Topics, such as maintenance of the usual sex partner, assumption of the less aggressive role, and positions to assume during coitus, were included less frequently. Examination of the topics that were most frequently included indicates that the topics were non-personal in nature and non-threatening. Information about food and drink, and their temperature at ingestion, rarely, if ever, evokes anxiety or stress on the part of the sender or receiver. The same can be said about the topics of rest and nitroglycerine.

Information on topics of a more personal nature, such as instruction on maintaining the usual sex partner and positions during coitus, was provided less frequently. These findings reflect the contentions made by various authors that few doctors or nurses discuss with clients the more personal aspects of sexuality, except in obvious circumstances, such as family planning or venereal disease. One of the reasons offered by these authors for this lack of discussion of sexual information is that both nurses and physicians fail to gain knowledge on sexuality during their educational preparation. Hence, they are not only unknowledgeable, but emotionally unable to deal with the topic of sex at a personal level. Because of this, they either avoid discussion of the subject or discuss it in generalities. Another factor in the lack of specific sexual counseling is the dearth of human research on sexual functioning relative to cardiac function post myocardial infarction. This lack of a theoretical basis leads to hesitancy about imparting specific information.

In indicating whether the content of sexual counseling was presented by doctors, nurses, or others, the respondents most frequently identified doctors as the ones who had discussed the content with them. From these results, the following conclusions were reached: nurses engaged in presenting sexual content were not perceived as sexual counselors; client teaching on sexual functioning post myocardial infarction was either neglected or inadequately performed by nurses; clients' need or readiness for learning was not identified by nurses; and physicians rather than nurses were more actively engaged in giving sexual content.

In discussing the nurse's role as a client teacher, authors suggested that nurses, for various reasons, were the ones who could best engage in client teaching. Nurses, in writing their own statements of philosophy have consistently stated that teaching is both a nursing function and responsibility. Thus, there seems to exist an irreconcilable discrepancy between what nurses say they believe about client teaching and what they actually do.

The majority of 5 subjects who felt they had received sex counseling indicated they had been informed when they could resume sexual activity. The content was presented at an understandable level, and an opportunity was given to ask questions. Nevertheless, they still indicated that the sex counseling given had not decreased their anxiety concerning resumption of sexual activity, nor had it prepared them to return to previous sexual patterns. Before drawing conclusions on these findings, consideration must also be given to the responses on specificity of content and adequacy of answers

to subjects' questions. Some of the respondents indicated that the content was so general that it could apply to anyone and that it did not answer the questions that they had concerning heart problems and sexual activity. Furthermore, it did not decrease their anxiety over resumption of sexual activity. From these findings, the following conclusion can be drawn: if the content presented was perceived by the learner as being too general, the content did not have relevance to his needs. In addition, it can be concluded that the clients have specific questions which they may or may not ask. The emotional climate under which the content was presented, as well as the emotional status of the client, might have led to the client's opinion that the content was too general and not relevant.

The data demonstrated that some of the respondents had asked for sexual counseling. In light of the fact that the counseling they received did not prepare them to return to previous sexual patterns, it can be concluded that the subjects may not have known how to ask questions, what to ask, when to ask, or whom to ask. Also, the nature of the discussion may have prevented them from specifying, in their questions, the information that they needed. Therefore, the generality of the subjects' questions may have led to general responses on the part of the counselor. Another possible conclusion is that the clients' questions were not clarified by the counselor before a response was given. As a result, the answers would not center on specifics, nor would they answer the intended question. Elucidation of both questions and answers is essential before understanding can occur.

All but one respondent indicated that sex partners had not been included in sexual counseling, and, thus, questions that sex partners had concerning heart problems and sexual activity had not been answered. It can be concluded that counselors did not perceive sex partners as an important influence on clients' resumption of sexual activity, and that clients were not perceived as members of a unit that could influence or be influenced by the other member of the unit. Counselors apparently believed that only clients had sexual learning needs, and that sex partners either did not, or that sharing information with sex partners was the responsibility of the clients. For whatever reason, counselors did not consistently include sex partners as participating members in sexual counseling. As a result, persons entering into intimate relationships with clients were not knowledgeable as to the extent of sexual activity clients could safely resume.

The data on sexual histories indicate that none of the 20 respondents considered the sexual histories obtained from them as being highly, or moderately specific. Generally, no sexual histories were obtained, or those that were obtained were non-specific. Thus, it must be concluded that sexual counseling was not based on the past patterns of sexual activity for the individuals involved. The counselors did not know the clients' own perceptions of their sexuality, nor did they know the clients' needs and expectations in their sexual roles. In addition, the problems and concerns that clients may have had concerning sexual health were left unanswered. Of the 16 clients who characterized sexual

counseling received as too general or unresponsive to the questions they had concerning heart problems and sexual activity, the majority of these respondents indicated that the sexual history obtained was non-specific, and/or that no sexual history was taken. From these data, it can be concluded that, without a sexual history as a basis for individual counseling, the information presented would be too general, lacking in relevance, and, therefore, not useful in meeting the needs of the individual.

In analyzing the data as to whether or not counseling on sexual functioning after a coronary should be included as part of routine health care, it can be seen that the majority of the subjects strongly agreed that it should be. From this it can be concluded that clients do have questions concerning sexual functioning post myocardial infarction, and that they do expect health personnel to provide sexual counseling as a part of health care.

Implications

The content of this study has implications for client teaching, nursing education, continuing nursing education and research.

Client Teaching

One way to assist clients in achieving their maximal potential is through teaching. Some authors have stated that all clients have learning needs, and that nurses have the responsibility for providing this service. Before nurses engage in health teaching, it

is necessary to determine what the learning needs of clients are, how clients learn best, and what the most appropriate methods of teaching are, in order to facilitate the individual learning process.

Another major consideration is the emotional status of clients at the time of presentation of content. Behavioristic theories of learning indicate that an extreme emotional environment hinders learning. Furthermore, learning proceeds more rapidly and content is retained longer when it possesses meaning, organization, and structure. Finally, that effective learning requires active participation on the part of learners. Since myocardial infarction clients typically experience varying degrees of stress, such as fear and anxiety, nurses need to consider the emotional environment when they are involved in sexual counseling. In order for information to be relevant, it must have meaning for the client. Realistic goals for learning cannot be established without considering the desires and needs of learners. One important aid to determination of these needs is the use of sexual histories.

Evaluation permeates the total teaching-learning process. However, no other component of client teaching has been so sorely neglected. Literature on the teaching-learning process has pointed out that evaluation should be based on pre-established criteria to determine the degree to which a behavioral objective has been attained. Nevertheless, if nurses found it necessary to demonstrate their effectiveness in client teaching, they would be unable to do do. It is not surprising that, when clients are asked to identify

the health professional who provided them with content, nurses are only infrequently named. Nurses assume that, because they have taught clients, the clients have learned something. One can speculate that, because nurses have not evaluated the extent of client learning, clients do not perceive nurses as sources of information, nor as persons who are capable of teaching. In addition, the unfortunate cult of "secrecy" or the "I cannot tell you, ask your doctor" philosophy, which is adhered to and perpetuated by some nurses, reinforces clients' perceptions of nurses as non-teachers.

Client education can no longer be considered a luxury, a task to be done only when nurses have time. While nurses continue to purport that they are a significant factor in quality care, and that they are very much involved in client teaching, studies continue to indicate that clients' knowledge about their condition, medications, and activities is extremely limited or lacking altogether.

Analysis of the literature on continuing education programs aimed specifically at the teaching-learning process indicates that, at present, this area is not emphasized. The literature is sadly lacking in information on workshops concerned with such topics as theories of learning, methods of teaching, and programs for assessing learning needs of clients or implementing client teaching in the clinical setting. If the heavy hand of tradition is the only explanation that the nursing profession has for the lack of educational programs specifically designed for client teaching, then client

teaching will continue to be dependent upon archaic practices and on decisions of physicians. The review of literature consistently indicated that nursing curricula have either avoided the topic of sexual functioning or placed it within the context of childbearing and social diseases. Consequently, nurses have not been educationally prepared to provide sexual counseling to clients.

Nursing Education

Nursing educators, having accepted the responsibility for shaping the future of nursing through the education of new generations of professionals, now have the responsibility for examining current methods of presenting sexuality in nursing programs. In the past, nursing educators have neglected to inculcate in practitioners a sexual openmindedness, a capacity to view sexuality as a phenomenon intrinsic to man, and an understanding of the significance of life's events to sexual functioning.

To prepare nurses as sex counselors is going to require that at beginning nursing educational levels, the learners be assisted to recognize clients' needs for sexual counseling. Concomitently, nursing educational institutions have the responsibility for providing an arena in which nurses can examine their attitudes and beliefs about sexuality and develop sensitivity to sexual functioning in altered health.

Because of the complexity and scope of sex counseling, advanced educational preparation that offers a sound, broad knowledge of sexuality development, human behavior, gender determinance, and

socio-cultural factors that affect sexual functioning is essential. Additionally, the nurse will have to gain knowledge of the influences of physical and mental health on sexual functioning. Essential to the role as a sex counselor are interviewing skills and counseling techniques. To gain this needed knowledge base the educational preparation of nurses as sex counselors belongs beyond the generic stages of nursing education. One way to achieve the preparation required for sex counseling is through continuing nursing education.

Continuing Nursing Education

Professional literature has consistently identified deficiencies in knowledge of and skills in sexual counseling on the part of nurses. Their knowledge of sexual counseling can be enhanced through continuing education. Continuing education, whether voluntary or mandatory, has as its central goal the updating of knowledge and skills for competent practice. To reach this goal, nursing educators need to determine the needs for knowledge and skills in sexual counseling so that a deliberate design can be formulated to enhance the educational repertoire of nurses.

To place sole emphasis on identification of nursing education needs without giving consideration to clients' expectations and problems is to negate the concept of clients as active participants in the teaching-learning process. A review of literature indicated that authors cited a lack of sexual counseling as one reason for altered sexual functioning post myocardial infarction. The subjects

of this study have indicated that sexual counseling should be included as part of routine health care. One of the more important patients' rights is their right to knowledge. Because of the confirmation of altered patterns of sexual functioning during altered health, clients' expectations and rights to knowledge, and, lack of sexual education preparation of nurses in their primary programs, it is necessary that those who are involved in sponsoring continuing education give consideration to the teaching-learning process for both nurses and clients.

Research

At present, there is no scientific basis for client teaching on sexual functioning post myocardial infarction. Only one research study was found dealing with this topic, and it remains a debatable issue whether or not the findings are being implemented in the counseling of clients. Findings of research studies, such as those of Hellerstein and Friedman, are of little use in improving client care if they remain nothing more than sources of idle medical and nursing conversation or interesting findings to be quoted over and over again by various authors. Until more human research has been carried out to test hypotheses in the area of sexual functioning post myocardial infarction, both physicians and nurses will continue to base their sexual counseling on assumptions that may or may not be valid.

Recommendations

From the findings of the study, as well as from the reading done for the writing of this paper, the following recommendations are suggested:

1. Conduct research that will determine reasons for hesitancy on the part of physicians and nurses, to discuss sexual functioning with clients or sex partners.
2. Conduct research that will determine clients' and physicians' perceptions of nurses as client educators.
3. Conduct research that will determine nurses' perceptions of themselves as client educators.
4. Conduct research that will determine effects of room temperature on cardiac function during coitus post infarction.
5. Conduct research that will determine effects of eating a full meal on cardiac function during coitus post infarction.
6. Conduct research that will evaluate sexual counseling programs.
7. Replicate this study, using a larger sample.
8. Conduct a similar study using a larger sample to include a sexual history guide.

From the data obtained it was possible to accomplish the purposes of this study. Also, the source, content, and adequacy of sex counseling provided clients who have had a myocardial infarction was determined.

REFERENCES CITED

Allendorf, Elaine E. and Keegan M. Honor. "Teaching Patients About Nitroglycerin," American Journal of Nursing Vol. 75, No. 7 (July 1975).

Baden, Catherine A. "Teaching the Coronary Patient and His Family." Nursing Clinics of North America, Vol. 11, No. 2 (June, 1976). Philadelphia: W. B. Saunders Company, 1976.

Bakker, Cornelis B.; Bogdonoff, Morton; Hellerstein, Herman K. et al., "Heart Disease and Sex: Response to Questions," Medical Aspects of Human Sexuality 5 (June 1971).

Beeson, Paul B. and McDermott, Walch, Textbook of Medicine 12th ed. (Philadelphia: W. B. Saunders Company, 1968).

Bigge, Morris L., Learning Theories for Teachers, 2nd ed. (New York: Harper and Row, Publishers, 1971).

Bogdonoff, Morton. "Heart Disease and Sex: Response to Questions," Medical Aspects of Human Sexuality 5 (June 1971).

Borgman, Mary Frances. "Coronary Rehabilitation--A Comprehensive Design," International Journal of Nursing Students 12 (1975).

Brammell, H. L. and Niccoli, Arlene. "A Program for Rehabilitation in Coronary Heart Disease," Nursing Clinics of North America, Vol. 11, No. 2 (June 1976). Philadelphia: W. B. Saunders Company, 1976.

Brammell, H. L. and Niccoli, Arlene. "A Physiologic Approach to Cardiac Rehabilitation," Nursing Clinics of North America Vol. 11, No. 2 (June 1976). Philadelphia: W. B. Saunders Company, 1976.

Elder, Mary-Scovill. "The Unmet Challenge--Nurse Counseling on Sexuality," Nursing Outlook 18 (November 1970).

Fonseca, Jeane D. editorial "Sexuality--A Quality of Being Human." Nursing Outlook 18 (November 1970): 25.

Freis, Edward D. Commentary in Howard, Elliott J., "Sexual Expenditure In Patients With Hypertensive Disease," Medical Aspects of Human Sexuality Vol. 7, No. 10 October 1973.

Friedman, Meyer, and Rosenman Roy H. Type A Behavior and Your Heart. New York: Alfred A. Knopf Inc., 1974.

Fuerst, Elinor V.: Wolff, LuVerne; and Weitzel, Marlene H. Fundamentals of Nursing. Philadelphia: J. B. Lippincott Company, 1974.

Gifford Ray W. Commentary in Howard, Elliott J., "Sexual Expenditure In Patients With Hypertensive Disease," Medical Aspects of Human Sexuality Vol. 7, No. 10 October 1973.

Green, Andrew W. "Sexual Activity and the Postmyocardial Infarction Patient," Fundamentals of Clinical Cardiology, 89 (February 1975).

Griep, Arthur H. and Sister DePaul "Angina Pectoris," In Nursing In Cardiovascular Diseases pp. 48-56. Compiled by Edith P. Lewis. New York: The American Journal of Nursing Company 1971.

Griffith, George C. "Coronary Artery Disease." In The Human Heart A Guide to Heart Disease, pp. 72-105. 2nd ed. Edited by Brendan Phibbs. Saint Louis: The C. V. Mosby Company, 1971.

Griffith, George C. Commentary in Howard, Elliott J., "Sexual Expenditure In Patients With Hypertensive Disease," Medical Aspects of Human Sexuality Vol. 7, No. 10 October 1973.

Guyton, Arthur C. Textbook of Medical Physiology, 4th ed. Philadelphia: W. B. Saunders Company, 1971.

Hall, Lydia and Alfano, Genrose. "Myocardial Infarction: Incapacitation or Rehabilitation?" comp. Edith P. Lewis, Contemporary Nuring Series, Nursing in Cardiovascular Disease 1971, New York: The American Journal of Nursing Company, 1971.

Haskell, William L. "Physical Activity After Myocardial Infarction," The American Journal of Cardiology, 33 (May 1974).

Helander, Sture and Levander, M. "The Primary Mortality and the Five Year Prognosis in Cardiac Infarction," Acta Medica Scandinavia, 163 (1959).

Hellerstein, Herman K. et al. "Heart Disease and Sex: Response to Questions." Medical Aspects of Human Sexuality, 5 (June 1971).

Hellerstein, Herman K. and Ford, A.B. "Rehabilitation of the Cardiac Patient," Journal of American Medical Association, 164 (1957).

Hellerstein, Herman K. and Friedman, Ernest H. "Sexual Activity and the Postcoronary Patient," Medical Aspects of Human Sexuality, (March 1969).

Henderson, Virginia. The Nature of Nursing, London: The Macmillan Company, Collier-Macmillan Limited, 1966.

Horton, Paul B., and Hunt, Chester L. Sociology, 2nd ed. New York: McGraw-Hill Book Company, 1968.

Houser, Doris. "Ice Water for M.I. Patients? Why Not?" American Journal of Nursing Vol. 76, No. 3. (March 1976).

Howard, Elliott J. "Sexual Expenditure in Patients With Hypertensive Disease," Medical Aspects of Human Sexuality, 7 (October 1973).

Jacobson, Linbania. "Illness and Human Sexuality," Nursing Outlook, 22 (January 1974).

Kaplan, Robert. Aspects of Human Sexuality. Dubuque, Iowa: Wm. C. Brown Company, 1973.

Kass, Irving, Updegraff, Katherine, and Muffly, Robert B. "Sex in Chronic Obstructive Pulmonary Disease," Medical Aspects of Human Sexuality, 6 (February 1972).

Katchadourian, Herant A. and Lunde, Donald T. Fundamentals of Human Sexuality. New York: Holt, Rinehart and Winston, Inc., 1972.

Kent, Saul. "When to Resume Sexual Activity After Myocardial Infarction," Geriatrics (August 1975).

Klein, Robert, Dean, Alfred, et al. "The Physician and Post Myocardial Infarction Invalidism," Journal of the American Medical Association, (October 1965).

Kogan, Benjamin A. Human Sexual Expression. New York: Harcourt Brace Jovanovich, Inc. 1973.

Lawson, Betty. "Easing the Sexual Fears of the Cardiac Patient," RN Magazine, 37 (April 1974).

Luckmann, Joan and Sorenson, Karen C. Medical-Surgical Nursing A Psychophysiologic Approach. Philadelphia: W. B. Saunders Company, 1974.

Masserman, Jules H., Manton, Herbert J., Labby, Daniel H., Mudd, Emily H., and Zimny, George H. "What's Happened to Femininity in the United States?" Medical Aspects of Human Sexuality Vol. II, No. 8. (August 1968).

May, Allyn G., DeWeese, James A., and Rob, Charles G. "Sexual Function in Men After Abdominal Aortic Surgery." Medical Aspects of Human Sexuality, 5 (April 1971).

Meltzer, Lawrence E.; Pinneo, Rose and Kitchell, Roderick J. Intensive Coronary Care A Manual For Nurses. Maryland: The Charles Press Publishers Inc., 1970.

Naughton, John P. "Heart Disease and Sex: Response to Questions," Medical Aspects of Human Sexuality, 5 (June 1971).

Prinzmetal, Myron, and Winter, William. Heart Attack, New Hope, New Knowledge, New Life. With a Preface by Walter C. Alverez. New York: An Essandress Special Editions, a division of Simon and Schuster, Inc., 1968.

Proger, Samuel. "What Do You Tell Post-Coronary Patients Regarding Sex Activity?" Medical Aspects of Human Sexuality, Vol. II, No. 11. (November 1968): 22-28.

Redman, Barbara K. The Process of Patient Teaching. 2nd ed. Saint Louis: The C. V. Mosby Company, 1972.

Riehl, Joan P. and Roy, Callista. Conceptual Models for Nursing Practice. New York: Appleton-Century-Crofts, A Publishing Division of Prentice-Hall, Inc., 1974.

Rodman, Morton J. and Smith, Dorothy W. Clinical Pharmacology in Nursing, Philadelphia: J. B. Lippincott Company, 1974.

Rydman, Edward J. "Who Should Initiate Sexual Relations, Husband or Wife?" Medical Aspects of Human Sexuality, Vol. IV, No. 2 (February 1970).

Scheingold, Lee D., Wagner, Nathanial N., Sound Sex and the Aging Heart. With a Preface by Robert M. Levenson. New York: Human Sciences Press, 1974.

Schwab, John J. "Heart Disease and Sex: Response to Questions." Medical Aspects of Human Sexuality. 5 (June 1971).

Semmler, Caryl, and Semmler, Maynard. "Counseling the Coronary Patient." American Journal of Occupational Therapy 2 (November-December. n.d.)

Standards of Cardiovascular Nursing Practice. Approved by the American Heart Association's Executive Committee of the Council on Cardiovascular Nursing and by the American Nurses' Association's Executive Committee of the Division on Medical-Surgical Nursing Practice.
Copyright American Nurses' Association 1975 Published by: American Nurses' Association Kansas City, Missouri ANA Publication Code: MS-4 20M 2/75.

Stoller, Robert J. Sex and Gender on the Development of Masculinity and Femininity. New York: Science House, 1968.

Tuttle, William, Cook, W. Leigh, and Fitch, Edna. "Sexual Behavior in Postmyocardial Infarction Patients," The American Journal of Cardiology, (January 1964).

Wahl, Charles W. "The Art of Taking the Sexual History," n.d. Vertical Files, Wichita State University Library, Wichita, Kansas.

Wenger, Nanette K. "Heart Disease and Sex: Response to Questions." Medical Aspects of Human Sexuality. 5 (June 1971).

Wenger, Nanette K. "Patient and Family Education After Myocardial Infarction." Postgraduate Medicine (June 1975).

Wenger, Nanette K. "Patient and Family Education After Myocardial Infarction." Postgraduate Medicine 57 (June 1975).

Winick, Charles. "The Beige Epoch: Depolarization of Sex Roles in America," Medical Aspects of Human Sexuality 3 (February 1969).

Winslow, Elizabeth Hahn. "The Role of the Nurse in Patient Education," Nursing Clinics of North America, Vol. 11, No. 2, (June 1976).

Wolberg, Lewis R. and Kildahl, John P. The Dynamics of Personality, New York: Grune and Stratton, Inc., 1970.

Wolff, Ilse S. "Myocardial Infarction: The Experience," comp. Edith P. Lewis Contemporary Nursing Series, Nursing in Cardiovascular Disease 1971, New York: The American Journal of Nursing Company, 1971.

Woods, Nancy Fugate and Mandetta, Anne F. "Human Sexual Response Patterns," Nursing Clinics of North America Vol. 10, No. 3 (September 1975).

BIBLIOGRAPHY

Books

Abdellah, Faye G., and Levine, Eugene. Better Patient Care Through Nursing Research. London: The Macmillan Company Collier-Macmillan Limited, 1965.

Abse, D. Wilfred; Nash, Ethel M.; and Louden, Lois M. R. Marital and Sexual Counseling in Medical Practice. 2nd ed. New York: Harper and Row Publishers, 1974.

Barber, Janet M.; Stokes, Lillian G.; and Billings, Diane Mc. Adult and Child Care A Client Approach to Nursing. Saint Louis: The C. V. Mosby Company, 1973.

Beland, Irene L. Clinical Nursing Patho-physiological and Psycho-social Approaches. 2nd ed. London: The Macmillan Company Collier-Macmillan Limited, 1970.

Bevis, Em Olivia. Curriculum Building in Nursing: A Process, Saint Louis: The C. V. Mosby Company, 1973.

Brecher, Edward M. The Sex Researchers Forward by Masters and Johnson. Boston: Little, Brown and Company, 1969.

Brenton, Myron. Sex and Your Heart. New York: Coward-McCann, Inc., 1968.

Brodericks, Carlfred B., and Bernard, J., ed. The Individual, Sex, and Society. Baltimore: The Johns Hopkins Press, 1969.

Davis, W. Allison, and Havinghurst, Robert J. Father of the Man. Boston: Houghton Mifflin Company, 1947.

Dunn, Halbert L. High Level Wellness. Washington, D.C.: Mt. Vernon Publishing Company, 1973.

Fox, David J. Fundamentals of Research in Nursing. 2nd ed. New York: Appleton-Century-Crofts Educational Division/Meredith Corporation, 1966.

Little, Dolores E., and Carnevali, Doris L. Nursing Care Planning, Philadelphia/Toronto: J. B. Lippincott Company, 1969.

Masters, William H., and Johnson, Virginia E. Human Sexual Repose. Boston: Little, Brown and Company, 1966.

Phibbs, Brendan. The Human Heart A Guide to Heart Disease. 2nd ed. Saint Louis: The C. V. Mosby Company, 1971.

Spence, Janet T.; Underwood, Benton J.; Duncan, Carl P.; and Cotton, John W. Elementary Statistics. 2nd ed. New York: Appleton-Century-Crofts-Merideth Corporation, 1968.

Sutterly, Doris C., and Donnelly, Gloria Ferraro. Perspectives in Human Development. Forward by Esther Lucile Brown. Philadelphia: J. B. Lippincott Company, 1973.

Treece, Elinor W., and Treece, James W. Jr. Elements of Research in Nursing. Saint Louis: The C. V. Mosby Company, 1973.

Wirsing, Marie E. Teaching and Philosophy: A Synthesis. Boston: Houghton Mifflin Company, 1972.

Journals

Ferdinand, Theodore N. "Sex Behavior and The American Class Structure: A Mosaic." Medical Aspects of Human Sexuality Vol. 3; No. 1 (January 1969): 34-46.

Fort, Joel. "Sex and Drugs: The Interaction of Two Disapproved Behaviors." Postgraduate Medicine Vol. 58, No. 1 (July 1975): 133-136.

Goldon, Joshua S. "Who Should Initiate Sexual Relations, Husband or Wife?" Medical Aspects of Human Sexuality Vol. 4, No. 2 (February 1970): 35-45.

Gorlin, Richard; Krasnow, Norman; Levine, Herbert; and Messer, Joseph V. Clinical Studies "Effect of Exercise on Cardiac Performance in Human Subjects With Minimal Heart Disease." The American Journal of Cardiology 13 (March 1964): 293-300.

Griffith, George C. "Sexuality and the Cardiac Patient." Heart and Lung 2 (January-February, 1973): 70-73.

Halleck, Seymour L. "Sex and Power." Medical Aspects of Human Sexuality Vol. 3, No. 10 (October 1969): 8-24.

Johnson, Winifred R. "Sex Education and the Nurse." Nursing Outlook 18 (November 1970): 26-29.

Kaye, Harvey E. "Mythology of the Genitalia." Medical Aspects of Human Sexuality Vol. 3, No. 6 (June 1969): 61-69.

Kaye, Harvey E. "The American Male: Victim of the Impossible Dream." Scene The Dallas Morning News Sunday Magazine, (June 16, 1974): 25.

Kirkendall, Lester A. "Sex Education." Medical Aspects of Human Sexuality Vol. 2, No. 5 (May 1968): 40-47.

Levinson, Richard. "Sexism in Medicine." American Journal of Nursing 76 (March 1976): 426-431.

Lord, Jere W. "Peripheral Vascular Disorders and Sexual Function." Medical Aspects of Human Sexuality 7 (September 1973): 34-43.

Mandetta, Anne F. and Woods, Nancy Fugate "Learning About Human Sexuality." Nursing Outlook 22 (August 1974): 525-527.

Redman, Barbara K. "Client Education Therapy in Treatment and Prevention of Cardiovascular Diseases." Cardiovascular Nursing (January-February 1974): 1-6.

Schwartz, Ronald M. "Sexual Freedom--How Does the Occupational Health Nurse Handle It?" Occupational Health Nursing (April 1976): 11-14.

Sorrel, Philip M. "Sexual Physiology and Sexual Functioning." Postgraduate Medicine Vol. 58, No. 1 (July 1975): 67-72.

Towers, M. "Clinical Presentation of Coronary Heart Disease." Nursing Times 71 (January 1975): 19-21.

Weinblatt, Eve; Shapiro, Sam; and Charles W. Frank. "Prognosis of Women With Newly Diagnosed Coronary Heart Disease--A Comparison With Course of Disease Among Men." American Journal of Public Health Vol. 63, No. 7 (July 1973): 573-593.

Wishnie, Howard A.; Hackett, Thomas P.; and Cassem, Ned H. "Psychological Hazards of Convalescence Following Myocardial Infarction." Journal of the American Medical Association 215 (February 22, 1971): 1292-96.

Wolff, Ilse S.; Kinlein, Lucille M.; Hazeltine, Louise S.; Hall, Lydia; Alfano, Cenrose; Warshaw, Leon J.; and Lembright, Katharine A. "The Patient With Myocardial Infarction." American Journal of Nursing 64 (November 1964): C-1 C-32.

Woodwark, G.M. and Gauthier, M.R. "Hospital Education Program Following Myocardial Infarction." Canadian Medical Association Journal 106 (1972): 665-67.

Source of The Form

Turabian, Kate L. A Manual for Writers. 4th ed. Chicago and London: University of Chicago Press, 1973.

May 1976

RE: Sexual Counseling Measure (SCM)

Dear Patient:

Frequently patients are invited to participate in projects which are conducted by health care personnel. The purpose of the projects is to obtain information that will assist in improving health care. You are now invited to participate in one such project.

Enclosed you will find a Sexual Counseling Measure, an instrument which has been developed to record the opinions of patients related to sexual counseling. The purpose of this project is to obtain information that will assist in improving the quality of health care for patients who have heart problems in addition to fulfilling the requirements for my Masters Degree in Nursing from Texas Woman's University.

Your name will not be revealed in the study. To guarantee anonymity, I am requesting that you do not place your name anywhere on the survey form. The results from the study of the data obtained from the survey will be shared with you at your request. If you wish to receive the results, please put your address on the envelope provided for you. Place the survey form in the envelope marked SCM after you have filled it out and return it to me. I will wait while you answer the questions on the survey form.

Thank you for your cooperation.

Sincerely,

Ida C. Unsain, R.N., B.S.

SCM
PART I CONTENT

The first part of the instrument is concerned with sexual counseling content and the person who discussed the content with you. At the right of each question are spaces marked yes, no, doctors, nurses, others please specify. Please mark every question as many times as appropriate. Do not leave out any question.

Since your hospitalization for a heart attack, have YOU been given any of the following information:	YES	NO	Was the information give to you by: Doctors	Nurses	Others (please specify)
1. When you could resume intercourse?					
2. To avoid intercourse one to three hours after a heavy meal with food and drink?					
3. To avoid drinking alcohol, particularly wine, before having intercourse?					
4. To avoid eating or drinking extreme hot or cold foods or liquids before having intercourse?					
5. To avoid having intercourse in extreme cold, hot or high humidity places?					
6. To have intercourse only with your usual sexual partner(s)?					
7. To keep your usual sexual pattern(s) but to avoid long or vigorous effort with the arms and shoulders?					
8. To rest after intercourse?					
9. That if you have chest discomfort during intercourse to use nitroglycerine before and/or during intercourse?					
10. That if you have chest discomfort during intercourse to relax then continue the activity?					
11. That the first time you have sexual intercourse to assume the less aggressive role between you and your partner?					
12. That elevating the head of the bed 10 to 14 degrees will reduce sensations of pressure in the chest and neck?					

SCM
PART II ADEQUACY

The second part of the instrument is concerned with determining whether or not the sexual counseling given was or was not useful to you. At the right of each opinion are spaces marked yes, no. If in your opinion, NO sex counseling was given, please DO NOT respond to No. 13, go to the next page and respond ONLY to No. 14, 15 and 17. If in your opinion sex counseling was given respond to No. 13, 14, 15, 16, and 17.

13. In my opinion the sex counseling I received during this hospitalization:	YES	NO
a. Was specific to my needs		
b. Was so general that it could apply to anyone		
c. Was presented so that I could understand		
d. Was asked for by me		
e. Was offered to me		
f. Gave me an opportunity to ask questions		
g. Included my sex partner(s)		
h. Decreased my anxiety over resuming sexual activity		
i. Has given me assurance that I can resume my past pattern of sexual activity		
j. Has prepared me to return to my previous sexual patterns		
k. Has answered questions I had concerning heart problems and sexual activity		
l. Has answered questions for my sex partner(s) concerning heart problems and sexual activity		
m. Has informed me as to when I can resume sexual activity		

SCM
PART III SATISFACTION

The third part of the instrument is concerned with determining your opinion regarding satisfaction with the sexual counseling. Please select ONE answer for each of the following responses which most closely reflects your feelings.

14. In my opinion the sexual history obtained from me during this hospitalization was:
    a. highly specific
    b. moderately specific
    c. mildly specific
    d. non-specific
    e. no sex history was taken

15. In my opinion the sexual counseling I received during this hospitalization was:
    a. highly specific
    b. moderately specific
    c. mildly specific
    d. non-specific
    e. no sex counseling was given

16. I rate the sex counseling I received during this hospitalization as:
    a. highly satisfactory
    b. moderately satisfactory
    c. mildly satisfactory
    d. unsatisfactory

17. Counseling on sexual functioning after a coronary should be included as part of routine health care:
    a. strongly agree
    b. agree with reservations
    c. disagree with reservations
    d. strongly disagree