A STUDY OF SEXUAL ADJUSTMENT OF THE OSTOMATE PRE- AND POST-ILEOSTOMY OR COLOSTOMY

A THESIS

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INTRODUCTION

> Blessed are thou, O Lord our God, King of the Universe, who has formed man in wisdom, and created in him many passages (orifices) and vessels. It is well known before thy glorious throne, that if but one of these be opened, or one of these be closed, it would be impossible to exist and stand before thee. Blessed are thou, O Lord, who are the wondrous healer of all flesh. (Dlin, 1973, p. 113)

The above ancient testimonial equates the unnatural opening or closing of a body orifice as being incompatible with God's healing and life itself. Yet with advanced medical technology colostomies and ileostomies are performed everyday in order to prolong or save a life. Despite this medical advancement in technology, only recently has attention been given to the psychological needs of these individuals. One can see as with the paradox of the ancient testimony, that the colostomy and ileostomy patient will be forced to undergo social and psychological adjustments to this unnatural opening of a body orifice. These people experience a threat to life, a change in body image, and a striving for social acceptance.

Perhaps the most important problem in the mind of an ostomate is also the problem that is least discussed and researched. This problem relates to the ostomate's many

questions and fears concerning their sexuality and sexual functioning. In some instances the surgery will alter an individual's sexual functioning. When extensive perineal and/or vaginal resections are performed, nerve damage may result causing sexual dysfunction. Such dysfunction depends on the degree of nerve damage to the genitals. Although several authors have addressed postoperative sexual dysfunctions (Dlin, Perlman, & Ringold, 1969; McCawley, Manmix, & McCarty, 1975), little investigation has been conducted in the area of postoperative psychological adaptation.

The focus of this study was on the sexual adjustment of individuals who did not require an extensive resection. These individuals must adapt psychologically to a new body image, and may thus encounter difficulties in the area of sexuality and sexual functioning.

Problem of Study

In order to ascertain the degree of psychosexual adjustment of the ostomate, this study focused on behavioral manifestations of individual's psychosexual self-concept, or sexual behavior.

Therefore the problem of this study was: Is there a difference in sexual functioning pre- and post-creation of an ileostomy or colostomy?

Justification of Problem

McCawley et al. (1975) reported that sexual problems are experienced to some degree by every ostomate. They maintained that the psychosexual behavior of ostomates depends on the mental and emotional attitudes the ostomates assumes toward changes in body and sexual relations (1975). Otherwise stated, the psychosexual adjustment of an ostomate depends upon acceptance of an altered body image and its implications during sexual relations. McCawley et als'. report has implications for nursing practice in that it is a nursing responsibility to aid the client in adapting to an altered body image. If an individual's sexuality and sexual functioning are impeded by an altered body image, then this area of client concern should also be included in management of nursing care.

However, before the nursing profession can accurately state that every ostomate needs sexual counseling, such needs must be determined by assessing the sexual needs of ostomates. At present there is limited research in this area, none of which was conducted by nurses. Therefore, the degree of sexual functioning prior to creation of the ostomy was compared with the degree of sexual functioning after the creation of the ostomy.

Conceptual Framework

The concept of body image and sexuality are integral aspects of an individual's overall self-concept. Body image influences sexuality, which in turn influences sexual functioning. The understanding of this relationship is essential in forming the framework for this thesis.

Body image has been defined as a mental picture of one's own body, or the way in which the body appears to the self (Corbeil, 1971). It has been further defined as "the constantly changing total of conscious and unconscious information, feelings, and perceptions about one's own body in space as different and apart from all others" (Norris, 1970, p. 39). These perceptions and feelings play a significant role in determining an individual's security, sense of self-esteem, and self-concept (Norris, 1970).

One develops a total perception of his or her body part through multiple sensory experiences. These sensory experiences may be from within the body itself or from contact with outside environmental stimuli. This process begins as infants discover their body parts and continues to evolve through each stage of growth and development (Kolb, 1959).

Sexuality is an important component of an evolving body image. At the most concrete level, sexuality includes

knowledge of biologic gender, or the difference between male and female which one becomes aware of early in childhood (Katchadourian & Lunke, 1975). Furthermore, an individual's gender identity, or sense of masculinity or femininity, contributes to the formation of body image. This identification with one sex is not necessarily determined by biology. The interaction of both biologic and social forces is capable of shaping the human's self-image as male or female shortly after birth and continues shaping this self-image thoughout life. Additionally, the concept of self as an adequate person is culturally influenced by one's ability to perform roles deemed appropriate for one's sex (Woods, 1979).

Sexuality, therefore, involves much more than procreation. It aids in the development of one's body image, and is comprised of an individual's biologic, psychologic, and social makeup. Sexuality is manifested both in relationships with others and in genitally focused behavior (Shope, 1975).

This genitally focused behavior, or sexual behavior, is comprised of those acts whose primary purpose is to elicit either sexual arousal or orgasm. Kinsey (1953) reported that the vast majority of both sexes usually attain arousal or orgasm through one or more of five main methods:

masturbation, nocturnal sex dreams, heterosexual petting, coitus, and homosexual relations.

Since sexuality is a component of one's body image, and sexual behavior is a manifestation of one's sexuality, individuals' body image can influence both their sexuality and sexual functioning. Woods (1979) demonstrated this relationship when she stated:

> the way in which one perceives his or her body may also influence his or her sexual self-concept and, in turn, sexual behavior. The individual who feels he is not attractive might feel inadequate in a sexual relationship. He might seek privacy and isolation from those who may potentially be shocked or disgusted by his appearance. (p. 324)

Such a situation can occur in individuals who experience a change in either body structure or function. An intact body image depends not only on one's ability to perceive his or her body and its parts realistically, but also on the ability to adapt to changes in body structure or function. Individuals who must adapt to such changes find themselves thrown into experiences that force them to alter their concept of self (Fisher & Cleveland, 1968; Gallagher, 1972).

A body image disturbance arises when there is a failure to accept the body as it is; there is a conflict between the body image as perceived and that maintained by the ego (Corbeil, 1971). Various studies report the negative effect

that ostomy surgery has on the body image (Druss, 1968; Gallagher, 1972; Orbach & Tallent, 1965). In fact, Gallagher (1972) reported that alteration or distortion of body image as a result of an ostomy is inevitable.

Feelings regarding body image have been formulated over a span of years. Consequently, it takes time to change the concept one holds about his or her body (Fisher & Cleveland, 1968). When individuals suffer radical body mutilation they resist accepting its reality and tend to persist viewing their body in terms of their previous intact body image (Orbach & Tallent, 1965). As patients progress gradually from a premorbid concept of self to an acceptable altered concept they pass through four phases: impact, retreat, acknowledgment, and reconstruction (Norris, 1970).

Since it is inevitable that ostomates will experience an alteration in body image, it is probable that they will also experience a change in sexual self-concept. Eventual successful adaptation to this altered body image will be determined to a large extent by the way in which the ostomate adapts his or her sexuality and sexual behavior.

Assumptions

In developing this study, several basic generalizations became apparent regarding the ostomy client and sexuality.

These generalizations were interpreted as basic assumptions and were the foundation of this study. The assumptions are as follows:

1. Alteration in body image as a result of a colostomy or ileostomy is inevitable.

2. A threat to one's body image can become the source of great anxiety.

3. Sexuality is an integral part of one's self image.

Research Question

The research question for this study was: Is there a difference in a person's recall of sexual functioning prior to the creation of a colostomy or ileostomy and their perceptions of current sexual functioning post creation of a colostomy or ileostomy?

Definition of Terms

Definition of pertinent terms that were used in this study are:

1. Colostomy--the establishment of an artificial orifice on the abdominal wall through some opening of the large bowel to maintain bowel function following injury or disease of the bowel.

2. Ileostomy--the surgical creation of an artificial opening into some portion of the ileus upon the abdominal

wall to maintain bowel function after injury or illness involving the entire large colon.

3. Sexual functioning--attainment of sexual arousal or orgasm by any of the following: masturbation, sex dreams, heterosexual petting, coitus, or homosexual relations.

4. Sexual arousal--onset of erotic feelings, or those feelings pertaining to love or sexual energy. It will be measured by the onset of penile erection in man and vaginal lubrication in female.

5. Orgasm--involuntary climax of sexual tension. In the male, orgasm is measured by ejaculation, which is expressed by involuntary, .8-second spasms of muscles at the penile base. In the female, orgasm is expressed by the contraction of the muscles of the bulbus and perineum, as well as the circumvaginal muscles, which also responds with a series of .8-second contractions. In the female, there is no ejaculation.

6. Masturbation--self-stimulation for sexual arousal and discharge. It usually involves manipulation of the genitals, but it may also be achieved through breast stimulation or rhythmic muscular contractions.

7. Sex dreams--also called nocturnal emissions, including those that occur during daytime sleep. It is the reaching of orgasm during dreams.

8. Heterosexual petting--any physical contact between members of the opposite sex undertaken for the purpose of sexual arousal but not involving actual penetration of the vagina by the penis.

9. Coitus--heterosexual intercourse involving vaginal penetration by the penis with the intent purpose of reaching orgasm.

10. Homosexual relations--any physical activity between members of the same sex for the purpose of erotic arousal and discharge. It may involve anal intercourse and oral-genital contacts.

11. Ostomate--any individual who has either an ileostomy or colostomy.

12. Abdominoperineal resection--a surgical procedure for cancer of the colon and/or rectum which involves radical removal of the colon, lymph nodes, perineal area, and perianal area. Closure of the anus is always seen with this operation. Interruption in the nervous control of the sexual response occurs with this procedure. The sympathetic outflow from the reflex center in the sacral part of the spinal cord which controls erection in males is interrupted. In addition, the parasympathetic outflow from the reflex center in the thoracolumbar part of the spinal cord which controls orgasm in both male and female is interrupted.

13. Body image--the mental picture of one's own body, or the way in which the body is perceived by the self.

14. Self-concept--an organization of how the person sees himself, principles that the individual regards as part, or characteristic, or his being.

Limitations

The following variables may have influenced the results:

1. Differences in the site of the ostomy and/or the extent of pathology of the participant may have influenced the finding of the study.

2. There was no control over the participant premorbid concept of self.

3. The sample was limited to members of an ostomy association which may not be representative of all socioeconomic classes, races, or cultures. Therefore, generalization of the results was limited.

4. The instrument used in this study was developed by this investigator, therefore the instrument was not standardized and reliability was limited.

Summary

It is assumed that the ostomate faces adaptation to both an altered body image and sexual self-concept. This

study was concerned with the effect this alteration has on the ostomate's sexual functioning. The research question was: Is there a difference in a person's recall of sexual functioning prior to the creation of a colostomy or ileostomy and present sexual functioning since the reaction of a colostomy or ileostomy? Chapter 1 included discussion of the above, and delineation of assumptions, limitations, and definition of terms.

CHAPTER 2

REVIEW OF THE LITERATURE

The following chapter contains a review of the literature. Specifically, the following are discussed: self-concept, body image and body image alterations, self-concept and body image changes in the ostomate, sexuality and sexual behavior, and sexual functioning in the ostomate.

Self-Concept

In recent years, the emphasis on ego psychology and interest in the individual and his personality make-up have contributed to a focus on the self-structure or self-concept (Wylie, 1961). In order to develop understanding of another person's behavior, it is significant and necessary to gain knowledge of how that person perceives himself.

Individuals' self-concept is a composite of a cluster of attitudes that they develop about themselves as a result of interaction with the environment. Varied theories exist about this interactive development. A recent research study by Gecas, Calonico and Thomas (1974) took a close look at the "Mirror Theory" versus the "Model Theory" in the development of self-concept. Authorities who view the self-concept from the "Mirror Theory" focus on the interaction

between an individual and other people. They believe that the "self-concept is a product of reflected appraisals of others, especially significant others" (Gecas et al., 1974, p. 68). Here the individual is viewed as playing an active role in the selective incorporation process. The metaphor of the "looking glass self" refers to this tendency of the self to develop from the social "reflections" or feedback, from others in the individual's life. The person actively assesses and internalizes the evaluative responses of others. The central hypothesis derived from the "Mirror Theory" is that "parental evaluation of the child is positively related to the child's self-concept" (Gecas et al., 1974, p. 69).

Social learning theory is the basis for the "Model Theory." Bandura (1969) has contributed much to the development of this theory. He stated that imitation and incorporation of the behavior and attitudes of others form the core of the self-concept. For Bandura the mechanism that links modeling behavior with self-concept formation is self-reinforcement. He states that:

> People generally adopt the standards for self-reinforcement exhibited by exemplary models, they evaluate their own performance relative to that standard, and then as their own reinforcing agents, reward themselves according to the internalized standards. (p. 33)

Bandura (1969) defines the self in terms of the relative frequency of positive to negative self-reinforcements. A negative self-concept would be one that has a high frequency of negative self-reinforcements, a positive self-concept, one with a high frequency of positive self-reinforcements. In general, the central hypothesis from the above "Model Theory" is that parental self-concept is positively related to the child's self-concept (Gecas et al., 1974).

Gergen (1971), in his book The Concept of Self, incorporates both theories by purporting that self-concept is developed by incorporating reflected appraisals, defining self in relation to others, learning behavior appropriate for specific roles, and labeling dominant modes of behavior in ways prescribed by society.

Body Image

A major component of self-concept is the concept of body image. Body image has been defined by numerous authors and investigators. Schilder (1950) defined body image as "the picture of our own body which we form in our mind . . . the way in which the body appears to ourselves" (p. 11). He explained that this picture is based on physical input such as pain, motor control over limbs, or a postural model,

as well as emotional input. The process of construction of the body image is based on emotional attitudes since "our body and the image of our body is, of course, the object of the strongest emotions" (Schilder, 1950, p. 67).

Gorman (1969) stated that one's body image is based on present and past perceptions and experiences. He viewed body image as a concept based on conscious and unconscious reports and as a dynamic entity that exists in the mind and affects or is affected by every bodily action. Norris (1970) concurred with Gorman's view but added that this perception is about "one's body in space as different and apart from all other. It is a social creation . . . and is basic to identity" (p. 42). Chupik (1977) stated that body image is a "unified pattern for organizing sensory input . . . a tridimensional unity (interpersonal, environmental, and temporal)" (p. 14). Fisher (1973) considered that body image is what individuals are willing to tell others about how they feel about their body or a part of their body.

Over a period of years, individuals organize their body image through the integration of multiple perceptions, a process beginning with the earliest stages of development (Kolb, 1959). Murray (1972) described how the body image changes in an orderly process in accordance with the stages of development as described by Erikson. The integration of

bodily experiences included within each stage of psychosocial development is essential in forming a healthy adult body image.

There are numerous types of disturbances of body image which have been described and investigated. In an attempt to describe the types of body image distortions which have been reported, Fisher and Cleveland (1968) noted that the individual may experience such things as blurring of the body boundary and the outside world, a sense of depersonalization; attribution of unrealistic qualities and extra parts, such as denial of missing or mutilated parts; and confusion of the left and right sides of the body.

Two recent studies demonstrated body image disturbances that can occur with developmental crises. Female adolescents striving for a shapely body can become so involved in weight loss that they distort their body image to the point of starvation and develop anorexia nervosa (Dikowitz, 1976). One of the usual characteristics of anorexics is a poor body image, that is, the patient's "don't know what they look like." They are disgusted or frightened by any sign of fat on their bodies. "At their most heartbreakingly skeletal, they believe they look beautiful" (Dikowitz, 1976, p. 35).

Tolar and Digrazia (1977) investigated the body images of pregnant women compared to the body images of nonpregnant gynecological patients. When both groups were asked to draw their own body, the pregnant women differed significantly ($p \leq .05$) from the control group in that 58% had more nude drawings, 45% emphasized the genitals, and 32% distorted the drawings. The researchers interpreted these findings by concluding that the nude drawings were suggestive of body narcissism and of preoccupation with body processes. The emphasis on the genital organs demonstrated sexual preoccupation or primitive behavioral tendencies. The distorted drawings represented a distortion in body image.

Other studies have investigated the relationship between body image distortions and physical disorders. Polivy (1977) found that body image was significantly changed ($p \leq .01$) immediately post-operatively for breast biopsy patients. However, mastectomy patients' body image and overall self-concept changed several months later.

Conatzer (1974) compared body image of adolescents with congenital heart disease and adolescents without congenital heart disease. The Draw-a-Person test (DAP) results indicated that there were more alterations in the body images of adolescents with congenital heart disease than those without congenital heart disease.

Self-Concept and Body Image: Changes in the Ostomate

Denial of either mutilation or missing body parts occurs as a manifestation of body image disturbances (Fisher & Cleveland, 1968). Alteration or distortion in body image as a result of an ostomy is inevitable; it occurs to a greater or lesser degree, depending on the individual's premorbid body concept (Gallagher, 1972). Additionally, a sudden change in the body image such as that which occurs in ostomy surgery usually arouses anxiety in the patient and is expressed as a distortion within the total self (Dlin, Perlman, & Ringold, 1969). Druss (1968) related this distortion to the premise that individuals suffer a period of grieving for the loss of normal function, the loss of bowel, the loss of anal control, and the loss of physical attractiveness.

Attitudes toward the anal orifice are gained early in life (Dlin et al., 1969). Added to the sense of loss and mutilation is the situation of being unable to avoid violation of the established social "code of cleanliness." The childhood attainment of sphincter control is so fundamental in human socialization that the loss of control results in emotional and social disruption (Druss, 1969; Orbach, Bard, & Sutherland, 1957).

Druss (1969) reported that 72% of the colostomates in his study showed deterioration of social life. Sutherland, Orbach, Dyk, and Bard (1952) reported social deterioration as well as depression and physical weakness in the majority of 29 men and 29 women colostomates. Depression was thought to be caused by feelings and thoughts of body mutilation. A sensation of weakness was attributed to the person's perception of the self as fragile. The authors concluded that this led ostomates to occupations which required less strenuous physical activity. Only a small percentage continued working at their present level without restriction of function (Druss, 1969; Sutherland et al., 1952).

Dyk and Sutherland (1956) sought to better understand the relationship of the spouse's emotional response and the person's effort to restore social function and self-esteem. They stated that the spouse was often the key to the patient's eventual success or failure in a satisfactory life adjustment. The authors reported that the male spouse of a female ostomate was more supportive than the female spouse of a male ostomate in all aspects of adjustments.

Roy, Sauer, Beahks, and Farrow (1970) concluded that adaptation to a changed body image and self-concept occurs with more ease in the ileostomy patient. This was

attributed to the fact that prior to surgery, the ileostomy patient had been subjected to a chronic, debilitating illness, and with surgery, symptomatology was relieved. Ninety-five percent of the subjects returned to their normal occupation, while 83% continued with leisure-time social activities.

Phanton rectum is a body image distortion common after rectal excision (Dorpat, 1971; Druss, O'Connor, & Stern, 1972; Farley & Smith, 1968). While it is of no serious clinical importance, it may surprise and even distress a patient, thus producing anxiety (Dorpat, 1971). The phenomenon seems unrelated to age or sex, rectal pain, pathology of the disease, or type of operation (Farley & Smith, 1968). Orbach and Tallent (1965) suggested that phantom rectum is a brief tactile hallucination facilitating the patient's denial of operative loss. Druss et al. (1972) stated that the ego has not yet begun to cope with the profound change in the body or integrated it into the body image.

Sexuality and Sexual Functioning

Sexuality is an important component of an evolving body image and self-concept. It is the total of biological, psychological, and sociocultural factors present in an individual that is manifested in biologic gender, gender identity,

appropriate sex-roles, and genitally-focused behavior (Shope, 1975). Each area is of equal importance in determining the human sexual response pattern.

Gender Identity and Sex Role

Gender identity differs from biologic gender in that biologic gender is the physiological differentiation between male and female, whereas gender identity is the sense of masculinity or femininity (Woods, 1979). Various theories exist that explain the development of gender identity and sex-role behaviors.

Psychoanalytical theory describes a process in which the young child identifies with the same-sex parent. The child will internalize characteristic and behavior styles of that parent and react unconsciously in similar ways. According to Freud, this identification is a resolution of the Oedipus complex. Thus, motivated by emotions directed at the parents, children form a gender identity congruent with their individual biological sex (Money & Ehrhardt, 1972).

Social learning theory suggests that the child develops a gender identity through a learning process that involves modeling, imitation, and reinforcement (Lynn, 1966). The theory rests on the assumption that boys learn

to be boys and girls learn to be girls because sex-role appropriate behaviors are rewarded whereas sex-role inappropriate behaviors are more likely to be ignored or punished (Lips & Colwill, 1978). Mischel (1970) suggested that a child is most likely to imitate or to identify with a model who is readily available and perceived as a powerful, nuturant, and similar to the self.

Kohlberg's (1966) cognitive development theory suggested that gender identity is a concept that cannot be learned until a child reaches a particular stage of intellectual development. Once a particular level has been reached, the performance or sex-role appropriate behaviors are self-rewarding. In other words, such behaviors cognitively acquire a meaning that makes them self-reinforcing. This process cannot begin until the child acquires "gender constancy"--an understanding that a person's gender is fixed and cannot be spontaneously altered by a change in hairstyle, dress, or name. Kohlberg suggests that this sexual identity occurs between the ages of three and five.

Sexual Response Pattern

Biologic factors. In monitoring the human sexual response pattern, Masters and Johnson (1966) recorded two principle physiologic changes: vasocongestion and myotonia

of the pelvic area. They describe four phases of the sexual cycle: the excitement, plaueau, orgasm, and resolution phases. Kaplan (1974) suggests that the nature of the human sexual response is actually biphasic. The first component is the vasocongestive reaction producing penile erection in the male and vaginal lubrication and swelling in the female. The second is the reflex clonic muscle contraction constituting orgasm.

Psychosocial factors. Fisher (1973) in his study of female orgasm, found that certain psychosocial factors were correlated with orgasm consistency. Feelings of dependability with regard to the love object seemed to be the most influential variable in relation to orgasm consistency. Masters and Johnson (1966) stated that the male's ejaculatory necessity has historically relieved him of psychosocial pressure that could tend to limit the female's orgasmic response. His sexual behavior is much more acceptable to him and to others. However, Woods (1974) stated that the male's fear of performance failure may indeed perpetuate failure in the orgasmic response.

Sociocultural factors. Sexual behavior is determined by both society and culture as well as biologic structure.

Comfort (1975) stated that it is difficult to ascribe sexual norms because of cross-cultural variations. Homosexuality is the most common cultural variation (Weinberg, 1974). Kinsey (1953) found that 13% of women and 37% of men had had at least one homosexual experience leading to orgasm. In a more recent study, Hunt (1974) estimates the incidence of homosexuality to be about 20% to 25% of males, with 13% of females having at least one homosexual incident in their lifetime.

Ford and Beach (1951) concluded that many aspects of sexual response are influenced by an individual's culture and subculture. The position for intercourse varies between cultures. In the United States the most common position is the female-supine, male prone, however, in other cultures the most common position for intercourse could be the squatting, side-to-side, or with the woman above the man (Ford & Beach, 1951). Whether the woman plays an active or passive role in intercourse is another factor influenced by culture. Sexual foreplay varies among cultures. For example, kissing is normal in American culture, but in some societies it is believed to be unsanitary due to the possible exchange of saliva.

Women and orgasm. Masters and Johnson (1966) polled persons in their sample with regard to the subjective experiences associated with orgasm. Three distinct stages of the women's orgasmic experiences were found: sensual awareness oriented to the clitoris, a feeling of warmth throughout the body, and the feeling of involuntary contraction of the vagina. Sherfey (1966) proposed that a woman has an indefinite capacity for orgasmic response if physical exhaustion does not intervene. Bardwick (1971) suggested that among women there is a learned pattern involved in the achievement of orgasm, and she defines three distinct levels of orgasmic response: minimal, moderate, and maximal orgasm. Although nonorgasmic coitus can produce adverse physical symptoms such as pelvic heaviness and low back discomfort, some women do appear to enjoy sex without orgasm (Stanley, Dormont, Shearer, & Sherman, 1973).

Men and orgasm. Masters and Johnson (1966) reported that men cited two stages of the orgasmic experience. The first stage is a feeling of ejaculatory inevitability, followed by the sensations of contractions of the urethral sphincter along with the perception of volume of seminal fluid as it is expelled through the penile urethra. Although

environmental factors may inhibit the development of sexual tension in the male, once the male begins to ejaculate, the process will continue to termination. Little, if any attention has been given to the question of whether a man can enjoy sex without orgasm (Woods, 1979).

Current Sexual Attitudes and Behavior

Although Kinsey (1953) was a pioneer in establishing sex research concerning sexual behavior in the United States, more recent studies indicate that Americans are engaging in a wider variety of sexual practices than 20 years ago. Nonmarital sex is now prevalent and accepted. When comparing his findings with that of Kinsey's, Hunt (1974) reported that the greatest increase in nonmarital sex has occurred among women. He found that approximately 75% of single women in this study had had intercourse before the age of 25. Extramarital sexual activity has also increased more for women than men. Twenty-four percent of wives and 32% of husbands under age 25 had had extramarital coitus. Masturbation begins at younger ages in males and females and continues for more years at a higher frequency today than at the time of Kinsey's survey. The Hunt (1974) survey found that seven out of ten husbands in their twenties and thirties masturbated. Almost as many wives in

this age group masturbated, though they did so less frequently.

Feminists have recently been speaking out against the society that contends the approach to sexuality is male-oriented. Rotkin (1976) coined the term "phallocentrism" and defined it as the society's male-oriented approach to sexuality which would include defining female sexuality in terms of the male. In the past, female sexuality had only been defined in terms of the vagina--the organ which gives direct pleasure to the male, without relating the importance of the clitoris in female sexuality.

This phallocentrism affects not only the definition of female sexuality, but also is the basis for the failure label the society tends to attach to impotency and premature ejaculation. Farrell (1975) emphasized sensuality which could be called a broader definition of sexuality--a definition that would not attach failure label to the male's premature ejaculation or to the female's orgasm attained through direct manual stimulation of the clitoris.

Sexual Functioning in the Ostomate

Although specific references in the literature concerning sexual functioning of the ostomate are limited, several trends have been noted. In general, sexual functioning and interest appear moderately depressed after creation of an

ostomy. Colostomates suffer to a greater degree than ileostomates, and few report improved sexual interest and performance (Woods, 1979).

Studies examining individuals with colostomies found high percentages of sexual inadequacies. Druss (1969) studied 36 men and women after creation of a colostomy and cited that 38% reported loss of sexual desire. Sutherland et al. (1952) reported that 69% of 29 men with colostomies were either impotent or had impaired erectile strength. Dyk and Sutherland (1956) found that 7 out of 15 women colostomates had intercourse less frequently after surgery and expressed less interest. Twelve out of 22 men in their study were impotent after surgery, while 7 had impaired erectile strength.

It has been suggested that alteration in sexual function after colostomy and perinal resection is attributable to interruption of the autonomic pathways in the pelvis (Woods, 1979). The results from the above studies could have been influenced by this structural change. Dissection that spares as much peritoneum as possible near the sacral promontory and rectum is believed to prevent damage to these nerves (Woods, 1979).

Less sexual difficulties have been reported by men and women with ileostomies. Based on a study of 45 subjects,

Stahlgren and Ferguson (1958) found that 7 out of 25 men with ileostomies reported sexual impairment, and only 2 out of 20 women noted difficulty after creation of the ostomy. They concluded that less difficulties found in ileostomates than in colostomates could be because of either the surgery itself or the fact that the ostomate no longer suffered from the debilitating illness of colitis. The surgery could have spared more nerve dissection, keeping the autonomic pathways in tact.

The findings of Druss (1968) confirmed those of Stahlgren and Ferguson (1958). Only 3 of the 17 men studied reported fewer sexual relations after creation of an ileostomy. However, Burnham, Lennard-Jones, and Brooke (1977) reported increasing percentage of erectile and ejaculatory impotence in male ileostomates with increasing age.

Dlin and Perlman (1971) conducted a study of the emotional response to ileostomy and colostomy in individuals over the age of 50. The frequency of intercourse per month as well as the ability to attain orgasm in sexual activity decreased after surgery. However, after surgery the authors stated that the subjects did maintain a high interest in sex and concluded that this spoke well of the fact that aging people still have a desire for sexuality in their life.

Dyk and Sutherland (1956) stated that the spouse was often the key to the ostomate's eventual success or failure in a satisfactory sexual adjustment. When satisfactory sexual adjustment occurred, the ostomate reported support from the spouse in all areas of adaptation. In general, where reasons for cessation of intercourse were given, it was nearly always attributible to the woman or a female spouse. They found no instance where cessation of intercourse occurred as a result of rejection by the husband.

Brown, Haddox, Posanda, and Rubio (1972) reported that men tended to have more positive responses than women when asked to describe their stoma, and men were more comfortable in discussing their sexual concerns and problems. The authors concluded this probably reflects the differential value placed on appearance for men and women.

Summary

Self-concept and body image include a perceptual view of self and a mental image of the body. Physical and emotional experiences have been described by many authors as interacting in influencing these perceptions. Since sexuality is an important component of the self-concept and body image, any physical or emotional experience can also influence sexual functioning.

The physical and emotional experiences that occur with the ostomy can affect self-concept and body image. However, limited data is available regarding the affect this alteration in self-concept and body image has on the ostomate's sexual functioning.

CHAPTER 3

PROCEDURE FOR COLLECTION AND TREATMENT OF DATA

This study was descriptive in nature. The design was nonexperimental and retrospective. In this design, the investigator had less control over the study subjects, and the study was conducted in a natural setting. The dependent variable was observed first, and then traced back to see if it was related to the independent variable (Abdellah & Levine, 1979). Perceptions of sexual functioning of the ostomate were retrospectively measured. Then present perceptions were measured to ascertain if the presence of the independent variable, or the creation of the ostomy, had made a significant difference in the dependent variable, or sexual functioning.

Setting

This study was carried out in a large, metropolitan city in southeastern Texas. The subjects supplied the information while in the privacy of their own homes.

Population and Sample

The population for this study were individuals with either a colostomy or ileostomy. Those who participated in the study met the following criteria:

1. Had had sexual relations prior to creation of the ostomy.

2. Was at least six months post creation of the ostomy which allowed for physical recuperation from the surgical procedure.

3. Did not undergo an abdominoperineal resection.

The sample included the entire population of the ostomy association in the geographical area of study. Approximately 200 men and women ostomates comprised this group. A convenience sampling technique was used. Convenience sampling is one in which the subjects are chosen as they become available to the investigator (Abdellah & Levine, 1979).

Protection of Human Subjects

This study complied with the current rules and regulations of the Human Research Review Committee at Texas Woman's University in the following ways:

1. A written explanatory letter was forwarded to each subject. (See Appendix A.)

2. This letter described the purpose of the study and a fair explanation of the procedures involved.

3. This letter described possible risks and benefits to the subject.

4. An explanation of the maintenance of confidentiality was included.

5. This letter contained a statement of possible withdrawal at any time a subject so desired.

6. The investigator offered to answer any and all questions concerning the study.

7. A statement was included indicating to the subject that the returned questionnaire indicated their consent to be a subject in this study.

8. The proposal for this study was approved by the Human Research Review Committee before any data were collected.

Instruments

A questionnaire was developed by this investigator as a tool to measure the sexual functioning of the sample. A four point Likert-type scale was used with choices ranging fron "very frequently" to "never" to ascertain attainment of either sexual arousal or orgasm using one or more of the five sexual outlets proposed by Kinsey (1958). The subjects were first asked to answer the questions according to their

sexual behavior prior to creation of the ostomy and then according to their present sexual behavior. Demographic data were also collected in the questionnaire in order to provide a profile of those responding. (See Appendix B.)

According to Abdellah and Levine (1979), it is essential that any research instrument be capable of yielding valid data. A data-gathering tool is validated when it actually measures what it purports to measure. The instrument should be able to obtain information that truly reflects situations, characteristics, or differences in the subjects measured. A panel of four experts in the field of sexual behavior was used to examine content validity of the instrument. The panel consisted of three clinical psychologists and one psychiatrist in private practices which included marriage, family, and sex therapy. The panel examined the questionnaire and made recommendations, while the investigator revised the questionnaire until three out of four panel members agreed to its validity. An alpha coefficient was run on the sample, in order to determine the internal consistency of the questionnaire. The result was an alpha coefficient of $r = 0.70956$.

Data Collection

The explanatory letter citing the purpose, risks, and benefits, in addition to the procedure for data collection

was mailed along with a coded questionnaire to the home of each participant. The investigator hand carried each letter and questionnaire to the president of the ostomy association. He, in turn, mailed the letter and questionnaire to all those appearing on the membership roster. The subjects were, therefore, anonymous to the investigator. They were asked to read the explanatory letter and questionnaire, and if they consent to be a subject in this study, they completed the questionnaire and returned it in the provided self-addressed, self-stamped envelope. If they did not consent, they returned the unanswered questionnaire in the envelope provided.

The subjects were asked to recollect to the best of their knowledge their sexual functioning prior to surgery, and to complete the questions concerning their prior sexual behavior. They were also asked to complete the same questions as they related to their degree of sexual functioning since creation of the ostomy. The subjects were asked to complete the questionnaire and return it to this investigator within a two-week time span. A second mail-out was not necessary to increase the sample size as 93 usable questionnaires were returned to the investigator.

Treatment of Data

In analyzing the result of this study, several types of statistical treatments were used. First, descriptive statistics were cited concerning the sample. Frequency distributions using percentages were presented for the nominal variables, age category, sex, and type of ostomy.

Each item of the questionnaire was scored, and the total score was calculated for each of the two segments of the questionnaire. Scoring was as follows:

1. Four points for each "very frequently" response.
2. Three points for each "frequently" response.
3. Two points for each "infrequently" response.
4. One point for each "never" response.

The questions provided ordinal ranked data, and allowed for inferential nonparametric statistics to be calculated. The Wilcoxon Matched Pairs test is a nonparametric test for a significant difference between two related samples. For this study, one group was the total score of the questionnaire items referring to the sexual functioning prior to the survey. The second group was comprised of the total scores of the questionnaire items referring to post-ostomy sexual functioning. These two groups of scores were compared to determine if there was a significant difference in the sexual functioning prior to and after the creation of the

ostomy.

Additionally, the variables of age, sex, and type of ostomy were compared. Subjects were divided into categories depending on their characteristics: age--either 21-40 years of age or 41-60 years of age; sex--either male or female; and type of ostomy--either ileostomy or colostomy. Pre- and post-scores on sexual functioning were compared using a 2 by 2 analysis of variance to determine if either age, sex, or type of ostomy was a factor in the degree of sexual functioning before and after creation of the ostomy.

CHAPTER 4

ANALYSIS OF DATA

This chapter presents the findings from 93 ostomates who returned the completed questionnaires concerning their sexual functioning. Frequency distributions describing the sample are presented, followed by descriptive data on the pre- and post-scores of the sexual functioning questionnaire. The Wilcoxon Matched Pairs test result was used to compare differences between the pre- and post-scores. Additionally, pre- and post-scores were compared in terms of age, sex, and type of ostomy using an analysis of variance.

Description of Sample

Results from the 93 questionnaires that were returned from the mail-out were used in the data analysis. Examination of the sample by age, sex, and type of ostomy revealed the following: 54.8% (51) of the sample ranged in age from 21-40 while 45.2% (42) were 41-60 years of age. Fifty-four percent (50) were males and 46% (43) were females. Forty percent (37) of the subjects had a colostomy, while the remaining 60% (56) had an ileostomy.

Findings

The questionnaire consisted of nine questions relating to the ostomate's sexual functioning prior to surgery and nine questions relating to sexual functioning since surgery (see Appendix A). The total score possible for each section was 36.

Table 1 illustrates the frequency distribution of the pre-surgical scores. The mean pre-surgical score was 25.1 with a standard deviation of 3.5. The range was 19-30 with a mode of 29.

Table 1

Frequency Distribution of Pre-Surgical Scores on Sexual Functioning Questionnaire

Score	Freq. N=93	% Freq.	Cum. Freq.
19	7	7.5	7.5
21	4	4.3	11.8
22	15	16.1	28.0
23	17	18.3	46.2
24	6	6.5	52.7
27	4	4.3	57.0
28	15	16.1	73.1
29	18	19.4	92.5
30	7	7.5	100.0
Totals	93	100.0	

Table 2 illustrates the frequency distribution for the post-surgical scores. The mean post-surgical score was 20.8 with a standard deviation of 3.2. The range was 16-29 with a mode of 19.

Table 2

Frequency Distribution of Post-Surgical Scores on Sexual Functioning Questionnaire

Score	Freq. N=93	% Freq.	Cum. Freq.
16	7	7.5	7.5
17	8	8.6	16.1
18	9	9.7	25.8
19	15	16.1	41.9
20	7	7.5	49.5
21	11	11.8	61.3
22	7	7.5	68.8
23	9	9.7	78.5
24	4	4.3	82.8
25	6	6.5	89.2
26	8	8.6	97.8
29	2	2.2	100.0
Totals	93	100.0	

The research question for this study was: Is there a difference in a person's recall of sexual functioning prior to the creation of an ostomy and their perceptions of current sexual functioning since creation of an ostomy? The Wilcoxon Matched Pairs test compared the pre-surgical scores with the post-surgical scores computing a value of z (-7.760

which was significant at the .001 level. Thus, there is a significant difference in sexual functioning pre- and post-ostomy for these subjects, with a decline in sexual functioning occurring after surgery.

A two-way analysis of variance was used to examine pre- and post-surgical sexual functioning scores by age, pre- and post-scores by sex, and pre- and post-scores by ostomy type. All three ANOVA's revealed a significant difference at the .001 level ($p < .001$). Post-hoc Neuman Keuls tests were used to determine specifically where the difference occurred. Findings indicated that those in the 21-40 year old category scored significantly higher ($p < .001$) in sexual functioning both before and after the surgical procedure; there was a significant decline in sexual functioning ($p < .01$) after surgery in both the young and old age categories. Females scored significantly higher than males in sexual functioning pre-surgically, however, no significant difference was found between males and females on the post-surgical scores. There was a significant decline ($p < .01$) in sexual functioning after surgery for both sexes. No significant differences was noted between colostomates and ielostomates in the pre-surgical scores, however, the ileostomates scored significantly higher ($p < .001$) than the colostomates in the post-surgical scores.

A significant decline ($p < .05$) was noted in pre- to post-surgical scores for both colostomates and ileostomates.

Summary of Findings

Analysis of the data indicated that a significant decline in the sexual functioning occurred after ostomy surgery. This decline was evident for the young as well as the old, males and females, and for those with a colostomy as well as those with an ileostomy. Thus, the research question, "Is there a difference in a person's recall of sexual functioning prior to creation of an ostomy and their perceptions of current sexual functioning since creation of an ostomy?" was answered affirmatively.

CHAPTER 5

SUMMARY OF THE STUDY

This chapter presents a brief summary of the study followed by a discussion of the findings. The conclusions based on these findings, along with the implications are presented. Finally, recommendations for further study are outlined.

Summary

This study was descriptive using a nonexperimental and retrospective design. A Likert-scale questionnaire which ascertained the attainment of either sexual arousal or orgasm by one or more of the five sexual outlets proposed by Kinsey (1958) was developed. The subjects were first asked to answer the questions according to their sexual behavior prior to creation of the ostomy and then according to their present sexual functioning. A comparison of the two sections provided the data for the research question.

Discussion of Findings

The significant difference ($p < .001$) found between the ostomate's sexual functioning before and after surgery indicates that sexual adaptational problems exist in the

adjustment phase of an ostomate. However, the results of this study do not disclose the numerous variables that may exist in sexual adjustment, such as partner availability, support of spouse, or additional illnesses.

The significant decline from the pre- to post-surgical scores in both young and old age groups reveals that all ages experience difficulty in adapting to the altered body image. However, the significantly higher scores ($p = .001$) of the 21-40 year old age category is congruent with physiologic expectations, and was described by Dlin, Perlman, and Ringold (1969), and Burham, Lennard-Jones and Brooke (1977). This does not mean that the older age category did not still have some interest in sexual behavior, because that only "never" responses elicited from the older age category were concerning masturbation and homosexual relations.

Both males and females declined significantly ($p < .05$) in the sexual functioning scores after surgery. However, it was of particular interest to note that while the females scored significantly higher ($p < .05$) than the males on the pre-surgical scores, perhaps reflecting changing sexual norms for women, there was no difference between male and female on the post-surgical scores. This larger decline in the females' post-surgical scores could represent gender

differences in the meaning of the altered body image, and subsequently its affect on sexual behavior. This finding is congruent with the conclusion made by Brown, Haddox, Posada, and Rubio (1972) that society places a differential value on appearance for men and women.

Although both ileostomates and colostomates declined in sexual functioning after surgery, ileostomates did not decline in sexual functioning as much as the colostomates. The significant differences ($p < .001$) found between the ileostomates and colostomates in the post-surgical scores is consistent with prior research findings (Burham et al., 1977; Druss, 1968; Roy, Sauer, Beahks, & Farrow, 1970; Stahlgren & Ferguson, 1958). It has been suggested that this is a reflection of the fact that ileostomies are more commonly performed for young persons with ulcerative colitis (a chronic disease) and colostomies for older adults with malignancies (Woods, 1970).

Conclusions

Following are the conclusions which are based on the findings of this study:

1. Sexual functioning declines as a result of entero-stomal surgery.

2. The age of the ostomate is related to the degree of sexual functioning both pre- and post-ostomy.

3. There is a greater decline in sexual functioning post-ostomy for females than for males.

4. Ileostomates experience fewer sexual difficulties than colostomates.

Implications

Since the findings of the study indicate that sexual functioning declines as a result of surgery, there exists either an educative or a psychological supportive need in the adjustment phase of the ostomate. Nurses need to assess sexual functioning as an area that may require intervention during the post-surgical phase. The nurse may need to include sexual counseling in the care plan of each new ostomate. The conclusions concerning the age, sex, and type of ostomy could lend directions to this sexual counseling. Based on the findings of this study, the older ostomate, the female ostomate, and the colostomate are prime candidates for sexual counseling, assuming that such counseling would be effective.

Recommendations for Further Study

The recommendations are as follows:

1. A further study could be performed which would relate the nature of interpersonal relationships to sexual performance and delineate alternate means of sexual

expression.

2. Further studies need to identify and develop effective sexual counseling protocols.

3. An experimental design should then be employed to test the effectiveness of sexual counseling with new ostomates, with the experimental group receiving sexual counseling, and the control group receiving no sexual counseling.

APPENDIXES

APPENDIX A: Informed Consent and Explanatory Letter

Summer, 1980

Dear Ostomate:

I am a registered nurse and as a graduate student pursuing a Master's degree in nursing at Texas Woman's University, I am presently involved in a research study concerning the sexual functioning of an ostomate. The purpose of the research is to ascertain whether there is a difference in sexual functioning before and after the creation of an ostomy.

I am asking for your assistance in obtaining this information by completing the enclosed questionnaire. The results of this study could be of later benefit to both you and your fellow ostomate if it aids in the establishment of sexual counseling as an integral component of the rehabilitative care plan of every individual with an ostomy.

Your identification will remain completely confidential. The questionnaire does not ask for your personal identification, nor am I aware of your identification. This questionnaire has been forwarded to you through the ostomy association in this area. A self-addressed, stamped envelope is provided so that you may return the completed questionnaire. The following is a statement of your consent

to be a subject in this study:

I UNDERSTAND THAT MY RETURN OF THIS QUESTIONNAIRE CONSTITUTES MY INFORMED CONSENT TO ACT AS A SUBJECT IN THIS RESEARCH.

I, alone, will collect the envelopes, and the information will be disclosed only in a collective manner.

However, I realize that your sexual functioning may be an area you wish not to discuss. Therefore, if at any time, you experience any discomfort while answering the questionnaire, you may withdraw as a subject in this study and cease answering the questionnaire. However, no medical service or compensation is provided to the subjects by this university as a result of injury from participation in this research.

It would be most helpful if you could complete and return the questionnaire within a two-week time span. I will be available to answer any questions you may encounter.

Results of this study will be found in the Jones Library, Texas Medical Center, in Houston, Texas. Thank you for your cooperation in this matter.

Respectfully,

Cynthia A. Snead, R.N.
Ph. #664-8082

APPENDIX B: Sexual Functioning Questionnaire

QUESTIONNAIRE

The following questionnaire concerns your sexual behavior before and after your surgery. Please answer all questions by either circling the best response or completing the blank with the appropriate response. The first five questions refer to demographic data.

1. Age: _____

2. Sex: Male Female

3. Type of ostomy: Colostomy Ileostomy

4. Did you have an abdominoperineal resection (Is your anus closed)? Yes No

5. Date of surgery: _____ (NOTE: If your surgery was after January 1, 1980, please do not answer the remaining questions. Return the unanswered questionnaire in the envelope provided.)

The next set of questions refer to your sexual behavior prior to the surgery. Circle the best response using the following key:

VF - very frequently
F - frequently
I - infrequently
N - never

6.	Before surgery, how often did you engage in coitus (intercourse involving vaginal penetration by the penis) with a member of the opposite sex?	VF	F	I	N
7.	Before surgery, how often did you engage in heterosexual petting (physical contact between members of opposite sex for purpose of sexual arousal. Does not involve penetration of the vagina by the penis)?	VF	F	I	N
8.	Before surgery, how often did you engage in masturbation (self-stimulation for sexual arousal and/or discharge)?	VF	F	I	N
9.	Before surgery, how often did you engage in homosexual relations (physical activity between members of same sex for purpose of sexual arousal or discharge)?	VF	F	I	N
10.	Before surgery, how often did you experience sex dreams (reaching of orgasm during dreams)?	VF	F	I	N
11.	Before surgery, were you ever able to experience sexual arousal (onset of erotic feelings marked by vaginal lubrication in female and penile erection in male) while engaged in any of the above methods of sexual functioning?	VF	F	I	N

Use this key:

VF - very frequently
F - frequently
I - infrequently
N - never

12. Before surgery, were you ever able to achieve orgasm (measured in the male by ejaculation and in the female by muscular contraction in the vaginal and perineal area) while engaged in any of the above methods of sexual functioning? VF F I N

13. Before surgery, were you ever able to achieve more than one orgasm during a session of sexual activity? VF F I N

14. Before surgery, did you find sexual activity enjoyable and satisfying? VF F I N

The last set of questions refer to your sexual behavior since the creation of your ostomy. Circle the best response.

15. Since surgery, how often have you engaged in coitus with a member of the opposite sex? VF F I N

16. Since surgery, how often have you engaged in heterosexual petting? VF F I N

17. Since surgery, how often have you engaged in masturbation? VF F I N

18. Since surgery, how often have you engaged in homosexual relations? VF F I N

19. Since surgery, how often have you experienced sex dreams? VF F I N

20. Since surgery, have you ever been able to experience sexual arousal while engaged in any of the above methods of sexual functioning? VF F I N

21. Since surgery, have you ever been able to achieve orgasm while engaged in any of the above methods of sexual functioning? VF F I N

22. Since surgery, have you ever been able to achieve more than one orgasm during a session of sexual activity? VF F I N

23. Since surgery, do you find sexual activity enjoyable and satisfying? VF F I N

APPENDIX C: Human Research Review Committee Report

TEXAS WOMAN'S UNIVERSITY
HOUSTON CAMPUS
HUMAN RESEARCH REVIEW COMMITTEE
REPORT

STUDENT'S NAME Cynthia A. Snead

PROPOSAL TITLE A STUDY OF THE SEXUAL ADJUSTMENT OF THE OSTOMATE PRE AND POST ILEOSTOMY OR COLOSTOMY

COMMENTS:

DATE: 8-13-80

[signature] ~~Disapprove~~ Approve

~~Disapprove~~ Approve

R. P. Bennett ~~Disapprove~~ Approve

~~Disapprove~~ Approve

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