

THE EFFECTS OF A HYSTERECTOMY ON FEMININITY  
AS RELATED TO BODY IMAGE

by

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## ABSTRACT

This was a descriptive study designed to answer the question: "Does a woman's perception of her body change three days after a hysterectomy as compared to a pre-operative assessment of her body image?" The purpose of the study was to describe feelings of women about their femininity before and after a hysterectomy.

Twenty-one women participated in the study. The Body Image Identification Test reported by Gottesman and Caldwell was given on the day prior to and three days following a hysterectomy. The test consisted of four parts, and each part had a series of seven drawings of silhouetted bodies or parts of bodies which did not have genital organs. The seven drawings were on a scale so that one represented most masculine and seven was most feminine.

The results indicated no significant differences found in the perception of the body image three days following a hysterectomy as compared to the pre-operative findings.

## CHAPTER 1

### INTRODUCTION

Although some contributors to the medical journals have been concerned with the emotional reactions of women having hysterectomies, nursing has primarily been interested in the physical aspects of the surgical procedure. Studies that have been done indicate that nursing should be aware of the emotional responses of the woman undergoing a hysterectomy to help her adjust more efficiently to the surgery. Hollender (1960) analyzed data on 203 female admissions to the Syracuse Psychiatric Hospital and found that pelvic surgery was seemingly a precipitating factor for admission in 4.5% of the cases as compared with 2.5% for surgery of all other types. All women do not react to a hysterectomy by exhibiting neurotic or psychotic tendencies. However, they have to perceive the loss of the body part so that an adjustment can be accomplished.

Women having hysterectomies have many fears revolving around their body image and self-concept. Polivy (1974) reported that women may fear the loss of sexual desire and the ability to respond sexually, the loss of childbearing ability and menstruation, the loss of femininity, the effects of aging and appearance, and the loss of strength. Melody (1962) discovered that in four percent of his sample, pre-operative fears were replaced post-operatively by depression.

In order for the woman to cope she needs to be able to ventilate her feelings, receive comfort, support, and acceptance from her husband, family, friends, and health professionals (Hampe 1975). Coping mechanisms cannot be completely functional unless the woman's fears and needs are first recognized by both the woman and her sources of support.

The removal of the uterus with or without any of the other internal female organs signifies a loss of a body part to many women, because the lost part is essential for the psychic functioning of the woman. The hysterectomy can be considered the wound, and the healing of the wound is accomplished by passing in an orderly sequence through the process of mourning (Engel 1963).

#### Statement of the Problem

Does a woman's perception of her body change three days after a hysterectomy as compared to a pre-operative assessment of her body image?

#### Purpose of the Study

The purpose of this study was to describe the feelings of femininity before and after a hysterectomy. The health professional needs to know if a woman's feelings of femininity have been altered after a hysterectomy so that the nursing care can be adjusted to meet her needs.

#### Significance of the Problem

Hysterectomies affect approximately 10% of the adult female population (Polivy 1974) which make the problems associated with this surgical procedure significant. The literature supported the fact

that gynecological surgeries result in more severe depressive reactions than other types of surgeries. The woman's ability to cope can be improved by allowing her to ventilate her emotions and by giving her support and comfort (Hampe 1975). However, more research is necessary to determine the fears the average woman experiences regarding femininity as it relates to the body image. This knowledge is necessary to help the woman recover with an intact body image.

Hysterectomy is just one surgery that alters femininity as it relates to body image. Many other procedures and injuries can have the same implications. As health professionals gain more knowledge of these fears, patient care can be improved.

#### Conceptual Framework

The body image begins to develop early in life when the ego emerges. The total body image is perceived through multiple sensory experiences which include both internal and external influences. "Body image has been conceptualized as a mental picture of one's own body -- the way in which the body appears to the self. It implies a personal investment in various parts of the body" (Woods 1975, p. 141), but it also includes one's perception of function, sensation, and mobility. An interruption of the body image, such as a surgical procedure, can result in anxieties and fears. Schaefer (1971) stated that fears are based on reality but anxieties are not.

Femininity is part of a woman's whole body image. According to Polivy (1974) physical attractiveness and child-bearing capabilities are the main components of femininity. Melody (1962) considered the

genital (uterus) as a social contact organ and removal of this organ could alter the individual's perception of her femininity and body image. An alteration in one's body image can also change that person's perception of how others respond to her.

In the initial phase of loss, denial is the most prominent mechanism the person uses to protect himself. However, when the loss is expected, there is a greater chance for the person to work through the initial awareness of loss and the shock phase may not occur. When conscious awareness of the loss occurs, it may be experienced as a sadness, which includes anxiety and a feeling of helplessness. Crying often accompanies this stage because ambivalence, anguish and despair are felt. In the third stage the person must successfully mourn the loss. The loss is perceived as a defect in the body image. As this process proceeds the lost object is detached from the self. The full accomplishment may take six to 12 months. If mourning is not accomplished, a psychotic depression or manic reaction may follow some months later (Engel 1963).

Poliivy (1974) reported that many women regard the loss of the uterus as an injury to their femininity. Hollender (1969) believed that a hysterectomy is perceived as a shock to nearly every woman. "The way in which one perceives his or her body may also influence the sexual self-concept and, in turn, sexual behavior" (Woods 1975, p. 141). Loss of the uterus (body part) is an alteration in the sexual-concept and can be exhibited as fears related to sexual desires and the ability to respond sexually.

Hollender (1969) stated that most women doubt their femininity to some degree. The femininity, which is part of the body image, is determined by a combination of psychosocial and biological factors. Most women hide their uncertainties very well. However, any threat to the body image, such as a surgical procedure, can expose these uncertainties and create problems of adjustment to the change for the person.

#### Limitations of the Study

The limitations of this study were:

1. The sample was limited to 21 subjects.
2. The subjects were scheduled for an elective hysterectomy.

#### Assumptions

1. All persons have a perception of their body image.
2. Women will respond in some way to a hysterectomy.
3. Femininity is a part of a woman's whole body image.

#### Definitions

Definitions of the following terms were used in this study.

1. Body Image -- the person's concept of his own body, a subjective experience.
2. Femininity -- a part of a woman's whole body image. This includes physical attractiveness, such as, curve of the eyebrow, appearance of the eyes, length of eyelashes, size of lips, size of shoulders, waist, and hips (Gottesman and Caldwell 1966).
3. Hysterectomy -- the surgical removal of the uterus with or without any other internal female structure.

4. Pre-operative -- any day prior to the surgery once the patient has been hospitalized.

5. Post-operative -- the third day after surgery before the patient goes home.

## CHAPTER 2

### REVIEW OF THE LITERATURE

In order to supply greater input into the formulation of this study, a review of the material on hand that concerned the subject matter was useful. The primary focus was given to studies related to hysterectomies. This included how the uterus related to the body image, how women were reported to react to a hysterectomy, and the concept of loss of a body part.

#### Body Image

A hysterectomy involves (the injury to) or the removal of a social-contact organ, including the uterus and related parts. "Because of its role in menstruation, pregnancy and childbirth, the uterus is central to those perceptions and attitudes of . . . the 'feminine self-concept' or the 'feminine identity'" (Wolf 1970, p. 165).

Drellich, Beiber and Sutherland (1956) and Drellich and Beiber (1958) interviewed 23 pre-menopausal women undergoing hysterectomies. Pre- and post-operatively they found that the women valued the female organs greatly because the organs helped in maintaining the total adaptation of the woman. The uterus was "valued as a childbearing organ; a cleansing instrument; a sexual organ; a source of strength, youth and feminine attractiveness; and a regulator of general body health and well being" (Drellich et al. 1956, p. 1126). The authors suggested

that castration was a threat to the sexual organ which was identified with the sex of the person and an alteration of her body image.

"Many patients actually mourn the loss of the uterus" (Keaveny, Hader and Massoni 1973, p. 9). The patients' egos are threatened because they associate the uterus with their femininity. Keaveny reported that some women fear loss of sexual relationship. The nurse "should anticipate her needs so that her post-operative adjustment will be based on realistic expectations" (Keaveny, Hader and Massoni 1973, p. 12). Melody (1962, p. 412) stated:

. . . one's body image, self-concept, or self-evaluation, are to a large degree determined by the social-contact organs and their symbol meaning to the individual.

According to Plutchik (Plutchik, Conte and Bakur-Weiner 1973) the aging process does not necessarily produce a devaluing change in one's body image. Since sexual functioning is part of the body image, Nichols' (1960) findings may support Plutchik. Nichols found that women in reasonably good health with physically able partners were sexually active into their seventh, eighth, and ninth decades. Murray (1972a, p. 621) states that:

. . . certain characteristics about the self appear to be more crucial to one's identification . . . , and any circumstance that alters or endangers this identification can have a marked effect on the person's self-concept.

Therefore, a hysterectomy is a circumstance which may alter a person's self-concept.

#### Reported Reactions to Hysterectomy

Schaefer (1971) stated that "anxiety is an emotional feeling grounded in childhood trauma which was never entirely resolved and

which left the individual conditioned to experience it in magnified degree" (Schaefer 1971, p. 21). The anxiety can be free-floating but usually is connected to a physical symptom and can be manifested by sexual dysfunction.

Lindemann (1941) studied 40 women ranging in age from 20 to 25 years old. He noted that those who had undergone a pelvic operation were more likely to have post-operative depression than those women who had had a cholecystectomy. Restlessness, sleeplessness, agitation, and preoccupation with depressive thoughts were reported more frequently following the pelvic operations.

Henker (1964) found that women with genital surgery have a higher incidence of psychiatric admissions. Later, Barker (1968) reported that 7% of 729 women who had had a hysterectomy were referred to a psychiatrist. Eighty percent of the psychiatric referrals occurred within two years of the hysterectomy. This rate was two and one-half times higher than the expected incidence among women of similar ages in the general population. The psychiatric referral rate was more than twice as high among patients without significant pelvic pathology than those with significant pathology.

During 1958, 203 women were admitted to Syracuse Psychiatric Hospital. Hollender (1960) discovered that pelvic operations seemed to be the precipitating factor in 4.5% (9) of the admissions, as compared with a rate of 2.5% (5) for other types of operations. Hollender suggested that the "relatively high incidence of profound reactions to pelvic operations is due to the meaning of these organs in maintenance of an acceptable self-image" (Hollender 1960, p. 501).

Later, Hollender (1969) believed that a hysterectomy was perceived as a shock by nearly every woman. How she responded to the shock depended on her coping mechanisms and the external supports available to her. The primary coping mechanism used appeared to be depression, which could range from mild depression to psychosis. According to Melody (1962) people exhibit depression when they feel rejected, devalued, and/or angry but at the same time hopeless and helpless.

According to Wolf (1970) a woman's acceptance of the need for the hysterectomy does not guarantee that she will be able to cope successfully with the situation. Her reaction to the hysterectomy depends on several factors:

. . . her emotional investment in her uterus and the functions that it symbolizes, the gratification of sexual and reproductive instincts during phases of maturation, and the resources available in her environment (Wolf 1970, p. 167).

Williams' (1973) study revealed that certain ethnic groups stress the importance of bearing and rearing children more than other groups. The women from these groups may be unduly anxious and fearful of a surgical procedure which alters their roles. However, this finding cannot be generalized, and caution should be used in viewing the ethno-cultural groups through this framework. She also noted that occupational and educational levels may be important variables.

In conclusion, Polivy (1974) stated that more careful, well-planned, and well-executed studies needed to be done. Most of the studies conducted lacked effective controls, random samples, statistical analysis, and well-defined criteria.

### Loss of a Body Part

The surgical removal of body parts may be considered an object loss. "Their impact as losses is especially serious when they involve emotionally invested parts of the body, such as the face, the breast or genitals" (Engel 1963, p. 295). Engel described the stages for coping with loss of body part as: (1) shock and disbelief; (2) developing awareness; and (3) restitution -- the work of mourning. If the object loss is anticipated there is more time to work through the awareness of the impending loss and the initial phase is less prominent. However, the person may respond to the loss by experiencing the feelings of hopelessness, sadness, and anger. "Crying seems to fulfill an important homeostatic function in the work of mourning" (Engel 1963, p. 275) during the stage of developing awareness. During the stage of mourning, the loss becomes reality and is seen as a defect in the body image. For many months the person is preoccupied with thoughts of the lost body part. As time passes the lost body part is detached from the self. When the dependence on the lost object diminishes, the person's energy can be directed toward other interests.

Although Kubler-Ross (1976) acknowledges the denial and anger phase, she does not mention the importance of the process of crying. This period is a time of reactive depression for the woman. Because of the loss of a body part the woman needs assurance from significant others. Bargaining, a stage before depression, occurs when the person is suffering from a terminal illness, and may not be so applicable in the loss of a body part unless the person uses this period to say, "if

only I had. . . ." If people are given enough time to work through the various stages, they will finally be able to accept the loss.

## CHAPTER 3

### METHOD OF THE STUDY

The subjects presented in this chapter are the design of the study, description of the setting, identification of the population and sample, description of the tool, method of data collection, and analysis of data.

#### Design of the Study

This descriptive study was designed to answer the question: "Does a woman's perception of her body change three days after a hysterectomy as compared to a pre-operative assessment of her body image?" A structured interview was done during the first pre-operative day in the hospital and again the third day after the hysterectomy. The criteria for patient selection were:

1. The subjects were females 21 years of age to 65 years of age and scheduled for an elective hysterectomy.
2. The subjects were able to speak and read English.
3. Subjects with malignant lesions were not included in the study.

The data collector approached the subjects by explaining the nature and purpose of her visit and the subject was asked if she would participate in the study. Before the interview started, the subject was asked to sign a consent form (see Appendix A). The subject was informed that she was under no obligation to complete the interview and

that she had the option to terminate the interview at any point she felt it necessary to do so. Femininity as related to body image was measured by the Body-Image Identification Test (Gottesman and Caldwell 1966).

### Setting

The Rocky Mountain area hospital selected was one which had an active gynecological surgical service. It did not necessarily represent a cross-section of the population in that area because most of the subjects were admitted by private physicians.

### Population and Sample

All subjects scheduled for an elective hysterectomy were included in the study if the operative note following the surgery did not indicate a malignancy. However, none of the women were eliminated from the study. Randomization of the sample was not done because of the limitations of the study.

### Selection and Description of the Tool

The Body-Image Identification Test reported by Gottesman and Caldwell (1966) was chosen, although it had not been validated, because it allowed for a quantitative measurement of subjective feelings of masculinity-femininity as related to body image. The questions were related to and revealed the subject's whole body image concept and the importance of separate body parts. The tool consisted of seven silhouette drawings of a human figure, each differing from the next quantitatively in seven dimensions, on a continuum according to an exact scale.

The figures were not clothed and no genital organs were shown. The masculine and feminine differentiation is accomplished in changed dimensions in:

(a) curve of the eyebrow, (b) the direction in which the eyes are looking, (c) the amount of eyelash, (d) the shape and fullness of the lips, (e) the width of the shoulders, (f) size of the waist, and (g) the size of the hips (Gottesman and Caldwell 1966, p. 23).

All of the other dimensions remained the same size on each card.

All of the cards showed anterior views of the body. These included seven whole figures, seven head and neck, seven arms and chest, and seven hips and legs. A total of 28 cards were used (see Appendix B). The six-inch whole length figures were drawn so that the body length was seven times the head length. These figures were centrally placed on four-by-seven inch white cards. Each whole figure was divided into three parts: seven face parts, seven shoulder and arm parts, and seven hips and leg parts. The separate parts were placed on four-by-seven inch cards in the same position that they originally were located in the whole figure cards. The remainder of the card was left blank.

The scale varied in exact amounts from one to seven. The most masculine figure was assigned the number one and the most feminine figure was given the number seven. The shoulders, waists, and hips varied on a seven point scale as follows: the shoulders from 1-12/16" to 1-7/16", the waists from 14/16" to 11/16", and the hips from 15/16" to 1-14/16". As the figures changed from most masculine to most feminine

(a) the eyebrows became more curved, (b) the eyelashes became fuller, (c) the lips became fuller, (d) the eyes changed from a direct, straight frontal glance to a sidelong glance, (e) the waist decreased in size from one to seven, and (g) the hips increased in equal amounts from one to seven (Gottesman and Caldwell 1966, p. 23).

The figures were not changed in any other way.

### Collection of Data

In order to secure permission to conduct this study and use the medical records services of the hospital, the design and intent of the study was discussed with the Director of Nursing. After permission was granted, the study was discussed with the Chief Surgeon of the gynecological service. He notified the data collector when women having hysterectomies were coming into the hospital. The subjects were interviewed on the day prior to surgery and the third day after surgery.

The data collector's initial contact with the patient was in the subject's hospital room the day before the hysterectomy. The data collector informed the subject that she was collecting data for a graduate student at the university and asked the subject if she was willing to answer a few questions about some pictures that would be shown to her before and after her hysterectomy. The data collector explained that all information gained would be compiled anonymously and that the privacy of the individual would be protected.

Written permission was obtained from each subject after the data collector explained the study. The subject was informed that she was under no obligation to complete the interview and that she had the option to terminate the interview at any point she felt it necessary to do so. She was informed that the interviews would take approximately

15 to 20 minutes each. The explanation stressed the point that the name of the individual and source of content was respected. The identifying material was known only by the data collector. No names were attached to the Subject Data Form. At no time were names of the subjects associated with the interview responses or the study in general.

The data were from two sources: (1) the subject's hospital chart; and (2) the subject. The hospital chart was used to confirm the subject's age, diagnosis, surgery for which she was scheduled, surgery which was performed, and final diagnosis. Additional information concerning her race, occupation, religion, marital status, and number of children were obtained from the subject and recorded on the Subject Data Form (see Appendix C).

The Body-Image Identification Test (Gottesman and Caldwell 1966) was given in a structured interview in which the answers were based on a forced-choice. This was given in a quiet area where seven four-by-seven inch cards could easily be placed in a row on a table. The numerical values were recorded in the appropriate place on the Subject Data Form. The subjects never saw the numerical values because they were written on the backs of the cards.

After the subject agreed to participate in the study, she was again told that she would be shown some pictures and asked to answer some questions. The subject was not informed about the purpose of the test in advance, but was told that her questions, if she had any, would be answered after the second interview. She was assured that participation in the study would in no way affect her nursing care.

The data collector sat opposite the patient and placed on the table the first series of four-by-seven inch cards facing the subject and directed away from the data collector. The cards were always presented in the same random order (3-1-7-4-6-2-5), as done by Gottesman and Caldwell, and one series at a time. The series were presented in a sequence of whole figure, face, shoulders, and hips.

When the whole figure was presented, the following questions were asked: (1) Which one of the figures is most nearly like you?; (2) Which one of the figures would you rather be like? Since Gottesman and Caldwell used the tool on teenagers, questions three and four were changed (see Appendix C). For this study the questions were as follows: (3) Who do you think is very feminine and which figure is most nearly like her?; and (4) Who do you think is very masculine and which figure is most nearly like him?

The remaining three sections included one series of seven cards for the face, one for the shoulders, and one for the hips. Two questions were asked in each section: (1) Which part (face, shoulders, hips) is most nearly like yours?; and (2) Which part (face, shoulders, hips) would you like to have? Each series of cards was again presented in the same random order (3-1-7-4-6-2-5). All information was recorded on the Subject Data Form.

### Data Analysis

The Body-Image Identification Test (Gottesman and Caldwell 1966) was used because it allowed for a quantitative measurement of the feelings of masculinity-femininity as they related to body image. The

test consisted of four parts, and each part had a series of seven drawings of silhouetted bodies or parts of bodies which did not have genital organs. The seven drawings were on a scale so that one represented most masculine and seven was most feminine.

The test was given pre-operatively and post-operatively, and the number written on the back of the card chosen by the subject was recorded on the Subject Data Form next to the appropriate question. Means were calculated for the pre-operative and post-operative responses of the 21 subjects. A t-test was used to determine if there was a significant difference between the means of the pre-operative and post-operative responses. A correlation coefficient was used to determine the type of relationship that existed between the pre-operative and post-operative responses. In addition, correlation coefficients were done between the different parts of the scale on the pre-operative responses to determine if there was a relationship between the choices made on the whole figure, face, shoulders, and hips. The same tests were repeated for the post-operative responses.

## CHAPTER 4

### PRESENTATION OF DATA

Described in this chapter are the findings and statistical analysis of the data collected.

#### Characteristics of the Sample

Twenty-one English speaking female subjects participated in this study. Their ages ranged from 23-47 years with a mean age of 31.8. Of the 21 subjects, 18 were Caucasian, one subject was Black, one subject was Mexican-American, and one subject indicated "Other" which was not specified.

Three categories for religious preference were chosen. Five subjects were Protestant, six were Catholic and 10 chose the category "Other."

Seventeen of the 21 subjects were married and four were divorced. Ten of the women had three or more children, eight had two children, two subjects had one child, and one subject had no children.

Educational attainment ranged from seven to nine years of education to four years in college with a mean of 12 years of education. Occupations were reported as follows: mother or housewife (9); assembly line worker (4); manager (2); steno clerk (1); police officer (1); school cook (1); jug handler (1); nurse aide (1); and waitress (1).

Fifteen of the subjects had vaginal hysterectomies and five had abdominal hysterectomies. One subject had an abdominal hysterectomy with a left salphino-oophorectomy. Reasons and frequencies given for the necessity of a hysterectomy were: Dysfunctional Uterine Bleeding (5); Prolapsed Cystocele and Rectocele (4); Multiparity (3); Endometriosis (3); Uterine Fibroids (3); Vaginal Bleeding (1); Left Ovarian Cyst (1); and Pelvic Inflammatory Disease (1).

#### Statistical Analysis of the Findings

This study proposed to investigate changes in a woman's feelings of femininity as related to the body image before and after hysterectomy.

#### Comparison of the Pre- and Post-operative Responses

Each of the questions (see Subject's Data Forms II and III) was rated according to the Body Image Test (Gottesman and Caldwell 1966) on two occasions, pre- and post-hysterectomy (see Table 1). The second and fourth columns present pre- and post-operative hysterectomy mean scores for each question. The third and fifth columns present the standard deviations for each question. Each t value in the last column resulted from a comparison of the two mean scores on the same row for each question. The t-test scores were evaluated at the .05 level of significance. Because of the t-test findings the decision was made that there was no statistical difference between pre- and post-hysterectomy responses to the questions on the Body Image Identification Test (Gottesman and Caldwell 1966).

Table 1. Pre- and post-hysterectomy perceptions of body image by t-test.

	Mean Pre- test	SD	Mean Post- test	SD	t-test	P
<u>Whole Figure</u>						
Most nearly like you	5.619	1.150	5.428	1.207	0.158	NS
Rather be like	5.333	1.154	5.476	1.030	-0.115	NS
Very feminine	5.523	1.631	5.380	1.321	0.089	NS
Very masculine	1.952	1.023	2.285	1.346	-0.209	NS
<u>Face</u>						
Like yours	4.904	1.757	4.904	1.972	0.000	NS
Like to have	5.666	1.154	5.714	1.189	-0.037	NS
<u>Shoulders</u>						
Like yours	3.952	1.909	4.380	2.132	-0.173	NS
Like to have	5.476	1.631	5.619	1.499	-0.070	NS
<u>Hips</u>						
Like yours	6.000	1.483	5.666	1.425	0.365	NS
Like to have	5.523	1.123	5.523	0.928	0.000	NS
df = 20						

Determination of Relationship Between  
Dependent Variables

The variables involved in this study were the following questions:

1. Which one of the following figures is most nearly like you?
2. Which one of the figures would you rather be like?
3. Which figure is most feminine?
4. Which figure is most masculine?
5. Which face is most nearly like yours?
6. Which face would you like to have?
7. Which shoulders are most nearly like yours?
8. Which shoulders would you like to have?
9. Which hips are most nearly like yours?
10. Which hips would you like to have?

Intercorrelations of the above list of variables were computed for pre- and post-test results (see Table 2). There was a correlation of 0.479 between the pre- and post-test of the figures most like you. There was a positive relationship between figure most like you (pre-test) and (1) hips like yours (pre-test) ( $r=0.464$ ), and (2) hips like yours (post-test) ( $r=0.704$ ). On the post-test the figure most like you and hips like yours resulted in a correlation coefficient of 0.639. There was a strong positive relationship between the pre- and post-test of hips most nearly like yours ( $r=0.803$ ). The figure most feminine had a positive correlation coefficient between the pre- and post-test ( $r=0.436$ ). However, there were negative correlations between the figure most feminine (pre-test) and (1) pre-test whole figure like you ( $r=-0.311$ ), (2) post-test whole figure like you ( $r=-0.475$ ), (3) pre-test hips like yours ( $r=-0.433$ ), and (4) post-test hips like yours ( $r=-0.501$ ). There



no correlation between the figure most feminine (post-test) and the pre- and post-test whole figure like you and the pre- and post-test hips like yours. Negative correlations were noted between the pre- and post-test of most masculine and most feminine whole figure.

#### Summary

The t-test for correlated samples revealed no significant differences in the perceptions of body image three days post-hysterectomy as compared to a pre-operative assessment of her body image. According to the results of the intercorrelations of the 10 dependent variables of the subject's perception of femininity of the whole figure on the pre-test showed an inverse relationship to the subject's own whole figure and hips on both the pre- and post-test. Also, the correlation coefficients between the most masculine and most feminine figures showed either a negative correlation or no correlation.

## CHAPTER 5

### DISCUSSION OF THE FINDINGS

Presented in the following chapter is the relationship of the findings of this study and the conceptual framework.

#### Findings and Conceptual Framework

All women have formulated a perception of their body image. Part of their perceptions of body image is determined by their biological functions, such as monthly menstrual periods and childbearing capabilities. A hysterectomy interrupts these normal occurrences and has the potential of disrupting the perceptions the woman has of her body image and femininity.

The removal of the uterus causes the woman to grieve or mourn the loss of a body part. If the woman has advance awareness that she is going to have a hysterectomy she has more time to process the loss and may not experience a shock phase. When the woman consciously realizes the loss, she will experience feelings of sadness or depression. When the loss of the body part is successfully mourned, the woman will accept the loss and compensate for the change in her body image (Engel 1963, p. 295).

This study attempted to determine whether the woman's perception of her body had changed three days after the hysterectomy, as compared to a pre-operative assessment of her body image. The tool

utilized in this study was the Body Image Identification Test reported by Gottesman and Caldwell (1966). Twenty-one subjects who had hysterectomies were given a pre- and post-test. The study did not find a statistically significant difference between the means of the pre- and post-test responses. However, it was noted that there was a negative correlation between the figure chosen as being very feminine on the pre-test and the woman's perception of her own whole body figure and her own hips on the pre- and post-tests. The test also showed that there was a negative correlation between the very feminine figure and the very masculine figure.

The tool, which was developed in the 1960's, depicts the very feminine figure as having a large bust, a small waist, and large hips. The negative correlation between the feminine figure and the woman's perception of herself may be an indication that the feminine figure of the 1970's may have a smaller bust with smaller hips, as seen in high fashion models. However, maybe the subjects did perceive themselves as less feminine pre-operatively as well as post-operatively.

Analysis of the control variables (age, race, religion, marital status, number of children, and educational attainment) revealed no statistical differences with regard to the Body Image Identification Test (Gottesman and Caldwell (1966)).

Several limitations of the study for these findings may have been the sample size and the inability of the tool to measure the subtle changes in the perceptions of the body image. In addition, three days may have been too soon for the woman to properly mourn the loss of a body part and to incorporate that loss into her body image.

If the subject population had been larger the difference in the mean values may well have been significant.

Possibly one person could have been more consistent in collecting the data. The differing opinions and attitudes of the investigators while administering the tests could have influenced the ways in which the subjects selected their choices. These variables could have been better controlled if only one investigator had been involved.

The ability of the tool to detect subtle changes in the perceptions of body image has not been well documented. The Body Image Identification Test has such a small range in scores that it is difficult to detect a significant change in the responses.

Engel (1963) stated that it may take six to 12 months for some one to successfully mourn the loss of a body part and to perceive it as a defect in the body image. In this study three days post-hysterectomy may not have given the woman enough time to process the loss of the body part.

This study did not consider how the woman perceived the hysterectomy. If it were considered as a positive event, it may not have a negative influence on the woman's perception of her body image. In conclusion, the statistical findings revealed that a woman would not perceive a change in her body image three days post-hysterectomy.

## CHAPTER 6

### SUMMARY AND RECOMMENDATIONS

This chapter presents a summary of the study and recommendations for further studies on the topic of perception of body image after a hysterectomy.

The purpose of this study was to determine whether a woman's perception of her body had changed three days post-hysterectomy, as compared to a pre-operative assessment of her body image.

The problem is significant because no previous studies had been carried out on the topic of a woman's perceptions of her body image following a hysterectomy while she was still hospitalized. If there was a change in the perceptions of body image following a hysterectomy these changes need to be considered when nursing care approaches are considered.

#### Methodology

This descriptive study was carried out by using a one-group pre- and post-test design. On the night prior to the surgery and three days post-hysterectomy the subjects were given the Body Image Identification Test. The sample included in this study were 21 women all of whom met the following criteria: (1) females between the ages of 21 to 65; (2) English speaking; (3) female patients scheduled for an elective hysterectomy; and (4) those patients without malignant

lesions. It was not necessary to remove any of the subjects from the study.

### Findings

Differences between the means of the pre- and post-test responses were computed by using the t-test for correlated samples. No significant difference was found in the perceptions of body image following a hysterectomy as compared to the pre-operative assessment of her body image. Correlation coefficients were computed on the dependent variables on the pre- and post-test results. It was noted that there was a negative correlation between the woman's perception of the most feminine figure and her perception of her own hips on both the pre- and post-test. This finding may indicate either that the woman has a poor perception of her femininity or that the tool does not portray the feminine figure that coincides with society's concept of femininity. Negative correlations were also found between the most masculine and feminine figures.

### Recommendations for Further Studies

1. Replication of this study using a random sample and utilizing several regions of the country and numerous health institutions.
2. Replication of this study using a larger sample.
3. Replication of this study with follow-up studies at six months, one year, and two year intervals.
4. Utilization of this tool with modifications to study women who have lost body parts due to surgery.

5. Replication of this study utilizing an experimental approach with a control group of subjects (a randomized control-group pre- and post-test design).

APPENDIX A

CONSENT FORMS

SUBJECT'S CONSENT FORM

I understand that I am being asked to participate in a project being done to study feelings before and after surgery. The purpose of this investigation is to assist nurses in improving their care of the surgical patient.

I agree to answer questions about the pictures that are shown to me before and after the surgery. I understand that each interview will take approximately fifteen to twenty minutes.

It is understood that this investigator will have access to my hospital chart. It is also understood that there will be no cost to me.

It has been explained to me that confidentiality will be maintained and that the investigator will be the only person able to relate my name to the findings.

The above "Subject's Consent" has been read by me and the explanations of the nature, demands, and benefits of the project are fully understood. I am free to withdraw from this project at anytime without influencing my medical or nursing care.

Subject's Signature \_\_\_\_\_ Date \_\_\_\_\_

Investigator's Signature

(As Witness) \_\_\_\_\_ Date \_\_\_\_\_

CONSENT FORM FOR HOSPITAL

Permission has been given to Charyl L. Bausler, R.N. to utilize this facility in collection of data for a research study being conducted through the University of Arizona, College of Nursing, Graduate College. This consent is given with the provision that the researcher also obtains the consent of the individual patients concerned.

Signature of Nursing Director \_\_\_\_\_

Date \_\_\_\_\_

CONSENT FORM FOR PRIVATE PHYSICIAN

Permission has been given to Cheryl L. Bausler, R.N. to utilize my patients in the collection of data for a research study being conducted through the University of Arizona, College of Nursing, Graduate College. This consent is given with provision that the researcher also obtains the consent of the individual patient, and approval of the hospital concerned.

Signature of Attending Surgeon \_\_\_\_\_

Date \_\_\_\_\_

APPENDIX B

SILHOUETTE FIGURES

Adapted, with permission, from Eleanor G. Gottesman and William E. Caldwell, 1966.

POWELL MURCHISON, MANAGER  
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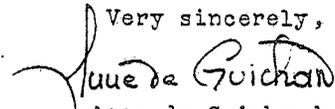
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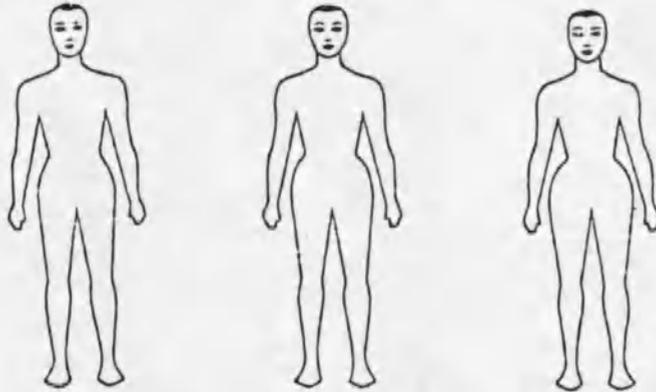
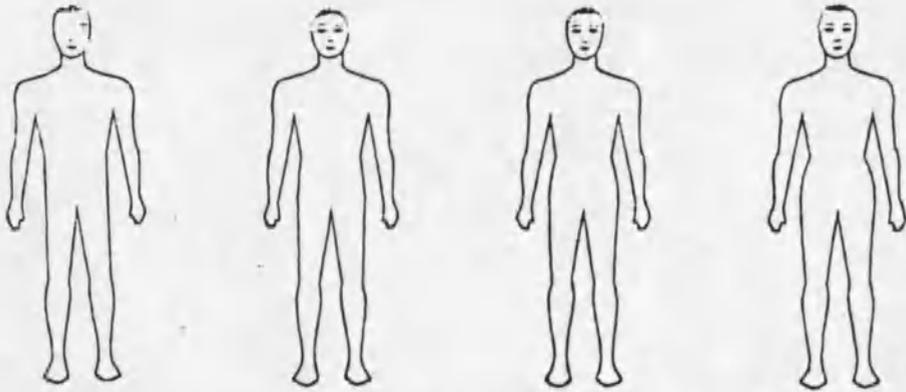
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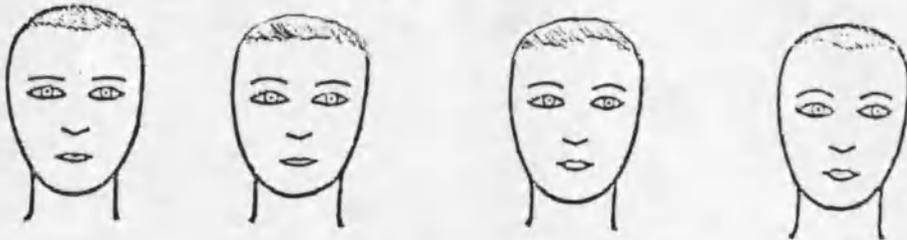
Very sincerely,

  
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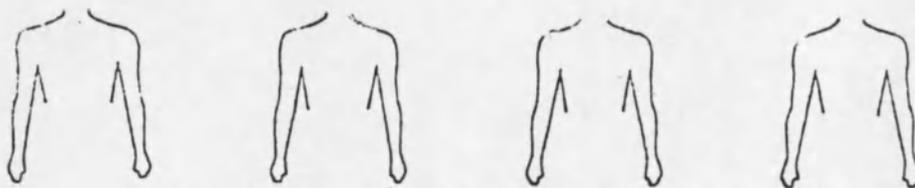


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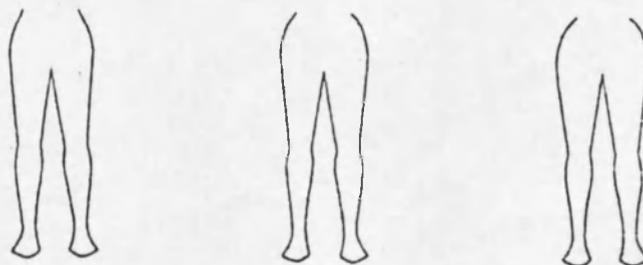
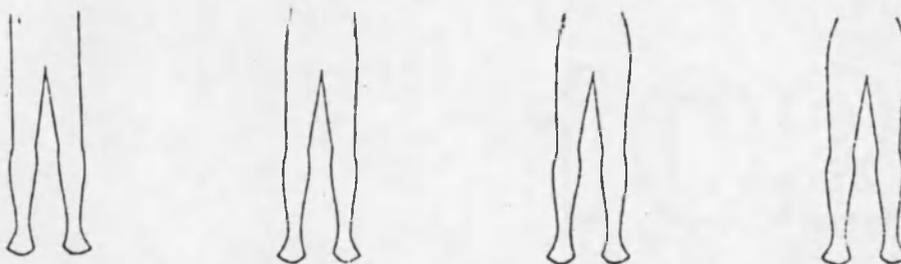


Face

Figure B-1. The Body Image Identification Test.



Arms and Chest



Hips and Legs

Figure B-1--Continued.

APPENDIX C

SUBJECT'S DATA FORMS

SUBJECT'S DATA FORM I

(1,2) SUBJECT NUMBER \_\_\_\_\_ (3,4) AGE \_\_\_\_\_

PREOPERATIVE DIAGNOSIS \_\_\_\_\_

OPERATION PERFORMED \_\_\_\_\_

FINAL DIAGNOSIS \_\_\_\_\_

(5)RACE: 1. Caucasian \_\_\_\_\_ 2. Black \_\_\_\_\_  
3. Mexican-American \_\_\_\_\_ 4. Other \_\_\_\_\_

(6)RELIGION: 1. Protestant \_\_\_\_\_ 2. Catholic \_\_\_\_\_  
3. Jewish \_\_\_\_\_ 4. Other \_\_\_\_\_

(7)MARITAL STATUS: 1. Single \_\_\_\_\_ 2. Married \_\_\_\_\_  
3. Divorced \_\_\_\_\_ 4. Widowed \_\_\_\_\_

(8)NUMBER OF CHILDREN: 1. None \_\_\_\_\_ 2. One \_\_\_\_\_  
3. Two \_\_\_\_\_ 4. Three or more \_\_\_\_\_

(9)EDUCATION: 1. None \_\_\_\_\_ 2. 1-6 \_\_\_\_\_ 3. 7-9 \_\_\_\_\_  
4. 10-11 \_\_\_\_\_ 5. 12 \_\_\_\_\_ 6. 13-15 \_\_\_\_\_  
7. 16 \_\_\_\_\_ 8. 17 or more \_\_\_\_\_

OCCUPATION: \_\_\_\_\_

SUBJECT'S DATA FORM II

## Pre-operative

## 1. WHOLE FIGURE:

a. Which one of the figures is most nearly like you?

(10) \_\_\_\_\_

b. Which one of the figures would you rather be like?

(11) \_\_\_\_\_

c. Who do you think is very feminine?

Which figure is most nearly like her?

(12) \_\_\_\_\_

d. Who do you think is very masculine?

Which figure is most nearly like him?

(13) \_\_\_\_\_

## 2. FACE:

a. Which face is most nearly like yours?

(14) \_\_\_\_\_

b. Which face would you like to have?

(15) \_\_\_\_\_

## 3. SHOULDERS:

a. Which shoulders are most nearly like yours? (16) \_\_\_\_\_

b. Which shoulders would you like to have? (17) \_\_\_\_\_

## 4. HIPS:

a. Which hips are most nearly like yours? (18) \_\_\_\_\_

b. Which hips would you like to have? (19) \_\_\_\_\_

SUBJECT'S DATA FORM III

## Post-operative

## 1. WHOLE FIGURE:

a. Which one of the figures is most nearly like you?

(20) \_\_\_\_\_

b. Which one of the figures would you rather be like?

(21) \_\_\_\_\_

c. Who do you think is very feminine?

\_\_\_\_\_

Which figure is most nearly like her?

(22) \_\_\_\_\_

d. Who do you think is very masculine?

\_\_\_\_\_

Which figure is most nearly like him?

(23) \_\_\_\_\_

## 2. FACE:

a. Which face is most nearly like yours?

(24) \_\_\_\_\_

b. Which face would you like to have?

(25) \_\_\_\_\_

## 3. SHOULDERS:

a. Which shoulders are most nearly like yours? (26) \_\_\_\_\_

b. Which shoulders would you like to have? (27) \_\_\_\_\_

## 4. HIPS:

a. Which hips are most nearly like yours? (28) \_\_\_\_\_

b. Which hips would you like to have? (29) \_\_\_\_\_

#### SELECTED BIBLIOGRAPHY

- Arbitol, M. Maurice and James H. Davenport. "Sexual Dysfunction After Therapy for Cervical Carcinoma." American Journal of Obstetrics and Gynecology, 110:181-189, May 15, 1974.
- Barker, Montager G. "Psychiatric Illness After Hysterectomy." British Medical Journal, 2:91-95, April 13, 1968.
- Brown, Robert, Victor Haddox, Alejandro Posada and Antonio Rubio. "Social and Psychological Adjustment Following Pelvic Extenteration." American Journal of Obstetrics and Gynecology, 114:162-171, September, 1972.
- Drellich, Marvin G. and Irving Beiber. "The Psychologic Importance of the Uterus and Its Functions." Journal of Nervous and Mental Diseases, 126:322-335, April, 1958.
- Drellich, Marvin G., Irving Beiber and Arthur M. Sutherland. "Papers Presented at the Ninth Annual Cancer Symposium of the James Ewing Society--The Psychological Impact of Cancer and Cancer Surgery--VI Adaptation to Hysterectomy." Cancer, 9:1120-1126, November-December, 1956.
- Druss, Richard G. and John F. O'Connor. "Changes in Body Image Following Ileostomy." The Psychoanalytic Quarterly, 41:195-205, October, 1973.
- Engel, George L. Psychological Development in Health and Disease. Philadelphia: W. B. Saunders Co., 1963.
- Gottesman, Eleanor G. and William E. Caldwell. "The Body Image Identification Test: A Quantitative Projective Technique to Study an Aspect of Body Image." The Journal of Genetic Psychology, 108:19-33, 1966.
- Hampe, Sandra Oliver. "Needs of the Grieving Spouse in a Hospital Setting." Nursing Research, 24:113-119, March-April, 1975.
- Henker, Fred O. "Female Genital Surgery and Mental Illness." Southern Medical Journal, 57:746-749, July, 1964.
- Hollender, Marc H. "A Study of Patients Admitted to a Psychiatric Hospital After Pelvic Operations." American Journal of Obstetrics and Gynecology, 79:498-503, March, 1960.

- Hollender, Marc H. "Hysterectomy and Feelings of Femininity." Medical Aspects of Human Sexuality, 3:7-15, July, 1969.
- Hunt, Valerie V. and Mary Ellen Weber. "Body Image Projective Test." Journal of Projective Techniques, 24:3-10, March, 1960.
- James, Sara Lyon, Frances Osborn, and E. R. Oetting. "Treatment for Delinquent Girls: The Adolescent Self-concept Group." Community Health Journal, 3:377-381, Winter, 1967.
- Keaveny, Mary Ellen, Linda Hader and Margaret McCormack Massoni. "Hysterectomy: Helping Patients Adjust." Nursing '73, 3:8-12, February, 1973.
- Kubler-Ross, Elisabeth. On Death and Dying. New York: Macmillan Publishing Co., Inc., 1976.
- Lindemann, Erick. "Observations on Psychiatric Sequelae to Surgical Operations in Women." American Journal of Psychiatry, 98: 132-137, July, 1941.
- McCloskey, Joanne Comi. "How to Make the Most of Body Image Theory in Nursing Practice." Nursing '76, 6:58-72, May, 1976.
- Melody, George F. "Depressive Reactions Following Hysterectomy." American Journal of Obstetrics and Gynecology, 83:410+, 1962.
- Merkatz, Ruth, Dorsey Smith and Pauline Seitz. "Preoperative Teaching for Gynecologic Patients." American Journal of Nursing, 74: 1072-1074, June, 1974.
- Murray, Ruth L. E. "Body Image Development in Adulthood." Nursing Clinics of North America, 7:617-629, December, 1972a.
- Murray, Ruth L. E. "Principles of Nursing Intervention for the Adult Patient with Body Image Changes." Nursing Clinics of North America, 7:697-707, December, 1972b.
- Nichols, Claude R. "Sexual Activities and Attitudes in Older Persons." Journal of the American Medical Association, 173:33-37, May-August, 1960.
- Patterson, Ralph M. and James B. Craig. "Misconceptions Concerning the Psychological Effects of Hysterectomy." American Journal of Obstetrics and Gynecology, 85:104-111, January 1, 1963.
- Peto, Andrew. "Body Image Depression." International Journal of Psychoanalysis, 53:259-263, 1972.

- Pfeiffer, Eric, Adnaan Verwoerd and Hsioh-Shan Wang. "Sexual Behavior in Aged Men and Women." Archives of General Psychiatry, 19: 753-758, December, 1968.
- Plutchik, Robert, Hope Conte and Marcella Bakur-Weiner. "Study of Body Image III: Body Feelings as Measured by the Semantic Differential." International Journal of Aging and Human Development, 4:375-380, Fall, 1973.
- Polivy, Janet. "Psychological Reactions to Hysterectomy: A Critical Review." American Journal of Obstetrics and Gynecology, 118: 417-425, February 1, 1974.
- Schaefer, Donald. "The Symptom Complex of Anxiety: Its Interplay with Fear." Medical Insight, 3:16-21, April, 1971.
- Williams, Margaret A. "Cultural Patterning of the Feminine Role -- A Factor in the Response to Hysterectomy." Nursing Forum, 12:378-387, October, 1973.
- Wolf, Sanford R. "Emotional Reactions to Hysterectomy." Postgraduate Medicine, 47:165-169, May, 1970.
- Woods, Nancy Fugate. Human Sexuality in Health and Illness. St. Louis: The C. V. Mosby Company, 1975.

