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The effects of preoperative teaching on anxiety levels of hysterectomy patients

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hysterectomy patients**

Fillmore, Judy Ann, M.S.N.

University of Nevada, Las Vegas, 1992

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Ann Arbor, MI 48106

THE EFFECTS OF PREOPERATIVE TEACHING
ON ANXIETY LEVELS OF HYSTERECTOMY PATIENTS

by

Judy Ann Fillmore

A thesis presented in partial fulfillment
of the requirements for the degree of

Masters of Science

in

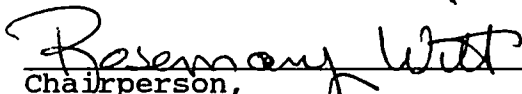
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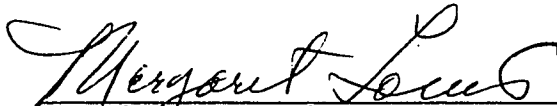
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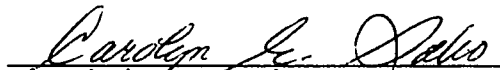
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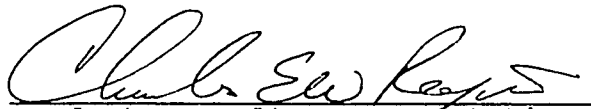
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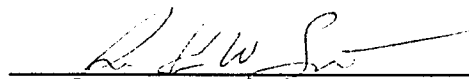
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ABSTRACT

This study investigated the effects of a preoperative teaching class on State Anxiety levels of patients scheduled for hysterectomy surgery. The Neuman System Model primary prevention mode of intervention was the conceptual framework on which this study was based. The subjects were a volunteer sample of forty women scheduled for hysterectomy surgery, randomized into an experimental group (attended preoperative teaching class) or a control group (no preoperative teaching). State Anxiety levels were measured on admission for surgery by the Spielberger Self-Evaluation Questionnaire (STAI). The significance of difference of mean State Anxiety Scores of the two groups was examined using Student's t-test (two-tailed) and ANCOVA. Analysis of data did not indicate a statistically significant difference at the .05 level of probability. However, in view of the small sample size used, further research in this important aspect of nursing, that of patient education, is suggested.

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Chapter I

INTRODUCTION

One of the roles of nursing identified by nurse theorists is patient education (Marriner-Tomey, 1989). In nursing education programs students are taught the importance of meeting the whole patient's needs and the need for education is paramount (Potter & Perry, 1991; Neuman, 1989). Patient education has produced many benefits to the patient, including shorter hospital stays, a reduction in health costs, an improvement in compliance and a reduction of complications (King & Tarsitano, 1982; Schlesinger & Heskett, 1991). In addition, the patient experiences more independence and control in their life (Potter & Perry, 1991).

When a patient is scheduled for a surgical procedure it may be their first experience in the hospital. This new experience causes stress for the patient, due in part to the anxiety of not knowing what will happen (Cochran, 1984). Preoperative teaching can play a significant role in reducing that stress (Hathaway, 1986).

In the health care delivery system of today, due to political pressure to reduce financial costs, there is a decrease in length of in-patient days (Ham, 1986). In the past many patients were admitted the night before surgery and there was time for the nurse to present information about their upcoming surgery (Potter & Perry, 1991). This is no longer possible today because of restraints placed on hospitals.

Problem Statement

Today, patients are often admitted the morning of surgery and the nurse presents preoperative information to them in a short time frame at a point when their anxiety state is already elevated (Cupples, 1989). Often this information takes second place to the more pressing issues involved in physically preparing the patient for surgery. The approach results in some patients who do not understand what is going to happen to them. This lack of knowledge contributes to the increase in anxiety or stress of the individual.

Purpose of the Study

The purpose of this study was to determine if,

at the time of admission to the hospital, state anxiety levels would be different among women undergoing a hysterectomy if preoperative teaching was provided. Women facing a hysterectomy were presented information about what would happen to them, feelings they might experience, and the physical layout of the gynecology unit. The specific purpose of the investigator were to plan, organize, and administer a preoperative teaching class for hysterectomy patients that would reduce their anxiety levels on admission for surgery.

Significance of the Study

This study contributes additional information to the data base concerning nurses providing preoperative education to patients. Information was gained about the relationships between preoperative state anxiety levels of hysterectomy patients and the teachings of postoperative behaviors and the identification of possible physical and emotional changes postoperatively. The study attempted to provide validation that nursing activities of low visibility, such as patient education, support high visibility nursing

activities such as administering medications and providing physical care.

Theoretical Framework

The theoretical framework for this study was based on the primary prevention mode of intervention of the Neuman Systems Model (1989) for nursing. According to Neuman, nursing interventions that involve primary prevention are those interventions that would be used when the risk or hazard from a stressor is known, but has not yet occurred.

Primary interventions are aimed at strengthening the flexible line of defense, to either prevent the hazard from occurring or decrease the impact when the stressor is introduced. Nursing interventions are planned and implemented to reduce the effect of the stressor on the patient. Surgery is a stressor, both physically and emotionally. Physical stress is related to the invasive procedures that occur during surgery. Further physical stress is experienced during the recovering or healing period. One of the reasons for emotional stress is

perceived fear of the unknown (Phipps & Long & Wood, 1987). Primary prevention nursing measures can be utilized to reduce these emotional stressors. One of the ways anxiety can be changed is by making the unknown more familiar. Patient education can have an effect on anxiety by reducing the amount of unknown information. As the patient's knowledge of the surgical experience increases there is a widening of the space between the normal line of defense and the flexible line of defense (Neuman, 1989). This widening of the space between the flexible line of defense and the normal line of defense increases the patient's ability to cope more successfully with the stress of surgery.

Through the nursing process, patients are assessed for anxiety due to knowledge deficits related to the perioperative procedures and outcomes. Deficits in knowledge, once identified, may be addressed in educational interventions by the nurse. Information provided to the patient may assist in the resolution of the knowledge deficit and subsequently reduce the anxiety. The information in this study was provided via a

structured preoperative class.

The preoperative teaching class presented content gleaned from a literature review which identified areas of knowledge deficits leading to increased anxiety levels among preoperative patients. Research has supported hypotheses that preoperative teaching does make a significant difference in the reduction of anxiety levels among operative patients (Lindeman & Stetzer, 1973).

With the current trend in society to be better informed about personal health care, patients are no longer taking the passive role. Patients are seeking and demanding information which will help them respond to the changes in their health. Preoperative teaching for hysterectomy patients hopefully will fulfill that need for information; thereby, increasing the patients ability to respond to stress.

Hypothesis

Hysterectomy patients who attend a structured preoperative teaching class will demonstrate on admission for surgery a significantly ($p < .05$) different level of anxiety as measured by the

Spielberger (1970) State-Trait Anxiety Inventory (STAI) than those hysterectomy patients who do not attend the structured preoperative teaching class.

Definition of Terms

Preoperative Teaching Class. Preoperative teaching class was a one hour session utilizing content presentation, demonstration, and return demonstration of procedures. The content presented was pre-established and focused on information a hysterectomy patient would need to improve her knowledge of surgery and postoperative experiences. An outline of course content is included in the appendices.

State-Anxiety. State-Anxiety was defined by Spielberger (1979) as the transitory condition of perceived anxiety. State Anxiety was measured in this study by the A-State scale of the Spielberger State-Trait Anxiety Inventory (STAI).

Trait-Anxiety. Trait-Anxiety was defined as a rather stable personality characteristic of anxiety proneness (Spielberger, 1979). Trait Anxiety was measured in this study by the A-Trait scale of the Spielberger State-Trait Anxiety Scale

(STAI).

Elective Surgery. Elective surgery in this study included surgery scheduled through a physician's office. The surgery was not performed on an emergency basis.

Hysterectomy Patient. Subjects undergoing surgical removal of female reproductive organs by either abdominal or vaginal methods of performing hysterectomies. Patients undergoing both partial and total hysterectomies were sampled, and are identified as such within the discussion of results.

Primary Prevention. Primary prevention was defined by Betty Neuman (1989) as interventions by nurses administered before a reaction to an environmental stressor occurs.

Flexible Line of Defense. The flexible line of defense is a protective, accordion-like mechanism that surrounds and protects the normal line of defense of an individual (Neuman, 1989). The flexible line of defense is composed of cultural, spiritual, psychological, physical and social variables. The flexible line of defense is

dynamic and changing all the time depending on the client's state. In this study, the strength of the individual's flexible line of defense was measured by the Spielberger State-Trait Anxiety Inventory.

Intrapersonal Stressors. Intrapersonal stressors were defined in this study as a woman's anxiety due to fear of the surgery and the stress associated with the procedure.

Assumptions and Limitations of the Study

This study focused on the effects of a preoperative teaching class on hysterectomy patients. The assumption of the investigator was that the population in the community in which the data was collected is similar in race, religion, and beliefs related to reproduction. The predominate religion in the community is the Church of Jesus Christ of Latter-Day Saints (LDS), or "Mormon". Another assumption was the Spielberger Self-Evaluation Questionnaire (STAI) has the established reputation of measuring anxiety.

The limitations of the study include a small sample size of 40 patients. Other variables, not identified or not controlled by the investigator,

could have also contributed to the patients' anxieties. The preoperative teaching provided by the admitting nurses may have varied in quality and consistency. Another limitation could have been the individual personality of each class which influenced the type of concerns expressed. Also, the presence of a significant other may have influenced the answers chosen by the subjects when completing the Spielberger STAI. These limitations and assumptions restrict generalization of the results to larger populations.

Chapter II

Review of Related Literature

Anxiety

Anxiety was defined by Hildegard Peplau in 1963 as the initial response to psychic threat. This threat, also known as a stressor, is very subjective. What might be a threat to one individual may be an everyday experience for another individual, causing that person no psychic discomfort. Individuals experiencing anxiety may not display any outward signs, but may be able through self-report, to inform others that they are experiencing anxiety. The self-report usually includes subjective comments about experiencing vague discomfort, dread, restlessness, feelings of powerlessness, or hopelessness (Johnson, 1989). Some behaviors which are observable can supply objective data useful in assessing an individual's anxiety level. These observable behaviors might include a change in behavior, pacing, agitation or some physiological response. Usual physiological responses include an increase in heart rate, sweating, increase in blood pressure, and an

increase in release of glycogen stores from the liver. These physiological symptoms are a result of a release of the neurotransmitters epinephrine and norepinephrine. Through the work of Hans Selye in 1946 it was conceptualized that the body can sustain these physiological symptoms for a period of time, but if prolonged the body will deplete its energy stores and go into a state of exhaustion (McCance, 1990).

The prospect of having surgery is a stressor which results in anxiety for most individuals. During the preoperative period, surgical clients will experience anxiety, but may not be able to identify the cause. Greenwood (1982) identified common stressors as fear of the unknown, loss of control, loss of love from significant others, and threat to sexuality. Specific stressors in the preoperative period, as identified by Phipps, Long, and Wood (1987) included a diagnosis of malignancy, anesthesia, dying, pain, disfigurement, and permanent limitations. All of the above generalized stressors, plus ones specific to each unique individual, can increase the individual's

anxiety level to a point where expected functioning is threatened. Some surgeons will postpone surgery if the anxiety level of the patient is too high (Phipps et al, 1987). These researchers also noted that patients with high levels of anxiety experience difficulty in the postoperative period. While, an individual experiencing a moderate amount of anxiety preoperatively, usually has a smoother postoperative period.

In a study by Domar, Everett, and Keller (1989), preoperative anxiety was analyzed to determine if potential predictors of anxiety could be identified. Five hundred and twenty-three patients scheduled for elective surgery were assessed. One half of the patients participated in a preoperative visit, which included drawing of samples for lab tests, visiting with the anesthesiologist and the operating room nurse. Assessment data included completion of the State-Anxiety portion of the Spielberger State-Trait Anxiety Inventory, measurement of blood pressure and pulse, demographics, possibility of cancer, presence of a support person, previous surgery and

extent of surgery. Analysis of data was completed utilizing multiple regressions. Results of this study indicated that women had a significantly higher anxiety level than men ($r = 0.17$, $p = 0.003$). The authors concluded that this result could be accounted for by the fact that they utilized a self-report of anxiety levels and it has been found that women are more willing to express feelings than men. The authors also reported that surgical patients with support persons present had statistically significant higher level ($r = 0.16$, $p = 0.006$) of anxiety than those without a support person. The authors suggested that the presence of a support person in the preoperative period may serve as a warning that the patient is experiencing increased anxiety and needs the support person. Surgical patients with higher education had higher anxiety state scales than those with less education ($r = 0.11$, $p = 0.066$). The authors found these results puzzling and believed that they were due to the city where the study was done being more medically oriented with a significant part of the population involved with the medical profession.

Another alternative explanation, discussed by the authors, for the higher anxiety level may be that higher educated individuals may be more expressive of anxiety on self-reported assessments.

Anxiety is a normal preoperative experience for patients. Developing a trusting relationship, answering questions, and giving careful explanations can assist in lessening this anxiety (Bean, 1990).

Preoperative Teaching

Preoperative teaching and its effects have been the subject of many research studies. The literature reviewed revealed that preoperative teaching or education is an important role of the nurse (Redman, 1988). Most patient education programs developed by hospitals include some type of preoperative information (Nelmes, 1989). This education may be in a structured or unstructured format (King & Tarsitano, 1982; Swindale, 1989). A structured type of preoperative teaching program includes a more formal approach to patient education, with a set outline of material to be covered. The material is presented the same way

every time. An example of a structured preoperative teaching program would be a videotape on the education channel at a hospital that is viewed by all patients having surgery. The teaching occurs in a group setting or on an individual basis (Cupples, 1989). An unstructured type of preoperative education program is when the nurse on a one-to-one basis, usually at the bedside as time allows during the daily care, provides information (King & Tarsitano, 1982; Redman, 1988).

The content of preoperative teaching should be dependent on the type of surgery a patient is having. However, there are some "generic" types of preoperative teaching classes where general information is given about all types of surgery. There are also classes presented which are specific to the type of surgery the patient is having. An example of a specific preoperative teaching class is one designed for patients who will have surgery for an open heart coronary artery bypass graft. The specificity is required for patients to effectively participate in the postoperative routine. In a study by Weiler (1968) the

information that open heart surgical patients (60 men and 40 women) believed to be most important was: (1) deep breathing and coughing; (2) information about pain, oxygen, and tubes; (3) information about intensive care units; (4) information about visiting with religious leaders; (5) visiting hours; (6) and communication with their family. Redman (1988) found that it was important to present information that is relevant, at a point in time that was useful, and to use adult education principles when presenting to adult patients.

Cupples (1989) evaluated if the time of presentation of preoperative information effected the knowledge and recovery of forty coronary artery bypass graft patients. The study compared patients who were taught 5 to 14 days prior to admission for surgery and patients who were taught postadmission per the hospital's routine. No assessment was done on the anxiety levels of either the experimental and the control group on admission to the hospital. The Spielberger State-Trait Anxiety Inventory (STAI) was used to assess state anxiety on the

fourth postoperative day. There was no significant difference between the experimental and control groups' anxiety state. The author concluded that the timing of information presentation, to patients undergoing open heart surgery, had no significant effect on the knowledge level or compliance with postoperative routines. While the purpose of the study was to determine if there was a difference related to timing of preoperative information presentation and knowledge retained, only the anxiety state scale of the STAI was used and measurements were only taken on the fourth postoperative day.

Raleigh, Lepczyk, and Rowley (1990) researched the benefit of preoperative teaching with the significant others of surgery patients. A convenience sample was utilized, comprised of seventy-two significant others and seventy-four surgery patients who were awaiting open heart surgery. The significant others were in attendance at the preoperative teaching class. Prior to the class the anxiety levels of the subjects were assessed using the Spielberger State-Trait Anxiety

Inventory. The STAI was then administered a second time in another form after the class, and a third time in yet another form the evening before surgery. The results indicated that initially the anxiety levels of the significant others were higher than the surgery patients, but dropped when assessed after the preoperative teaching class. The anxiety levels of the surgery patients increased after the preoperative teaching class, but not significantly ($p < 0.05$). The anxiety levels of the significant others remained consistently higher than those of the surgery patients during the three assessment periods. This study did not compare the anxiety levels of patients who did not attend a preoperative teaching class. In discussing the study, the investigators stated that the decreasing anxiety scores of significant others' supported studies done by Lindermen & VanAernam, (1971) and Schmitt & Wooldridge (1973). These early studies maintained that preoperative teaching will decrease anxiety in surgical patients.

Conceptual Framework

Neuman (1989) developed a model of nursing titled the Neuman Systems Model. The model is comprised of four major concepts: person, environment, health and nursing. The four concepts are seen as interactive. The model postulates that interactions between the individual and the environment is mediated via lines of defense. The lines of defense attempt to protect the core structure of the individual from external and internal stressors. Neuman describes two lines of defense. Closest to the core structure is the normal line of defense, which represents what the individual has become over time. It is a composite of several variables and behaviors such as the individuals's usual coping patterns, life-style, developmental stage, and cultural pattern. The line of defense, which encircles the normal line of defense, is labeled the flexible line of defense, and is thought to be accordion-like in function. The flexible line of defense is dynamic and can be altered over a relatively short period of time and is susceptible to situational circumstances. It is

anticipated that one way of strengthening the flexible line of defense is via preoperative teaching. Mirenda (1986) states that the greater the area between the flexible line of defense and the normal line of defense, the greater the degree of protectiveness experienced by the individual.

In this study, the flexible line of defense was the focus of the nursing intervention. It is acknowledged that patients preparing for a surgical procedure experience psychological stress and during the procedure experience physiological assault. Mirenda (1989,133) states, that nursing is concerned with all the variables affecting a person's response to stressors. Marriner-Tomey (1989) states that one area for nursing intervention is primary prevention, defined as making assessments and intervening with purposeful actions to help the client retain and/or maintain system stability. Primary prevention occurs before a reaction has occurred, but a degree of risk is known. Thus if primary preventions, in the form of preoperative teaching were to occur, the flexible line of defense would be strengthened. The

distance between the flexible line of defense and the normal line of defense would increase, thereby decreasing the amount of reaction the patient would experience due to the psychological threat of the surgical procedure as well as the physiological threat.

Neuman's model prescribes that nurses have the responsibility to use all available means, via research and theory, to increase the space between the client's normal line of defense and their flexible line of defense. Preoperative teaching is one method that will contribute to the achievement of that goal. By increasing the patient's knowledge he or she will have a better understanding of what will occur preoperatively, operatively, and postoperatively. This knowledge allows the patient to feel empowered and exert some control. Empowerment has the potential to reduce anxiety, thereby reducing the physiological response to stress, and increases the space between the normal line of defense and flexible line of defense (Neuman, 1989).

Chapter III

METHODOLOGY

The purpose of this study was to determine if full attendance at a structured preoperative class would effect the anxiety of patients scheduled for a hysterectomy. It was hypothesized that the preoperative anxiety levels of the hysterectomy patients who attended the structured preoperative teaching class would be significantly different than the anxiety levels of the hysterectomy patients who did not attend the class. The preoperative anxiety level was measured at the time of their admission to the hospital just prior to surgery. All subjects were admitted the morning of their scheduled surgery.

Population

The hospital chosen for data collection in this experimental study was a 106 bed acute-care facility in rural southern Utah. The facility serves the 45,000 individuals residing in the community, as well as clients from southern Nevada and western Arizona. There is a separate

gynecology unit where hysterectomy patients are placed. The medical staff includes gynecologists as well as several general practitioners who perform hysterectomies. Several hysterectomies are performed each week.

Presently the hospital does not offer a structured preoperative teaching class to hysterectomy clients. Scheduled surgery patients meet with the admitting nurse prior to their admission. During the visit an assessment is completed, general preoperative teaching is provided, consent forms are signed and questions answered. A form documenting the teaching completed is filed in the patient's chart and sent with the patient. The documentation identifies content areas which may need to be reinforced by the staff nurses on the gynecology unit.

Sample

The subjects in this research study included patients having elective vaginal or abdominal hysterectomies from February 1992 to June 1992. The total sample was a convenience sample of 40 patients. The sample pool of approximately 60

patients was divided into two groups by randomization from the hospital's surgical list. Each week hysterectomy patients scheduled for surgery within the next week were numbered on the surgery schedule, and from a standard randomization table, numbers were assigned to either the experimental group (Group A) or the control group (Group B). Scheduled hysterectomy patients were contacted by the investigator and asked to participate in a study involving hysterectomy patients. If potential subjects consented to be in the study they were informed of their placement in a group and what their involvement would include. The subjects did not know if they were in the experimental or control group. Those in Group A were informed of the preoperative teaching class being held the week before their surgery and asked if they wished to participate in the study. Those in Group B were informed they would have a questionnaire, demographic information form, and consent to fill out at the time of their admission for surgery.

Design

To determine the effects of a structured preoperative teaching class on the anxiety levels of hysterectomy patients an experimental Randomized Control Group After Only design (Holm & Llwelllyn, 1986) was utilized. This design was selected because a pre-test was not convenient with such a diverse area served by the hospital. The experimental group was informed of the preoperative teaching class and encouraged to attend. If they decided not to attend they were dropped from the study. The control group, which consisted of those hysterectomy patients not assigned to the experimental group, participated in the usual generic preoperative teaching done by the admission nurse. Upon admission to the hospital for their surgery, all subjects were given the Spielberger State-Trait Anxiety Inventory to assess their anxiety levels and the demographic information form by the investigator. These forms were given prior to the administration of any medication.

Educational Intervention

The preoperative teaching class was offered

twice a week during the months of investigation. The class was taught at the hospital and lasted approximately one hour.

The class objectives and content were derived from the Patient Teaching Loose-Leaf Library (Springhouse, 1991), an article by Gelfant (1984) and textbooks (Brunner & Suddarth, 1991; Phipps et al., 1987). Personal experiences of nurses who had experienced hysterectomies, recommendations of nurse experts from the gynecological unit, and suggestions from local gynecologists were also integrated into the content of the preoperative teaching class. The objectives for the course are included in the appendices (Appendix A).

The primary objective of the preoperative teaching was to produce a well-informed patient who knew what she could control and what was expected of her, and thus assist in the reduction of her anxiety.

Teaching strategies utilized were based on methodologies recognized by Knowles (1980) as effective in adult education. Other teaching strategies included charts, lecture, handouts, and

a question and answer period. There was also time allowed for small group discussion focusing on feelings and concerns. The first class was considered as a field study, and items discussed by those individuals were included in all the following classes. Tours were given showing geographic areas of the hospital where patients would be before and after the procedure. Those areas included the Same-Day Surgery Area, recovery room and the gynecological unit.

Data Collection

The subjects participated in this study on a voluntary basis. Subjects were initially approached via the telephone. Those who agreed to participate by telephone were informed at that time what their involvement included. Consent forms were signed by subjects in both groups. Subjects in Group A (Experimental) signed their consent form at the beginning of the preoperative teaching class. Included with that consent form was a cover letter explaining the study (Appendix B). They were given a copy of the consent form and cover letter to keep. The signed consent forms were

collected by the investigator. Subjects in Group B (Control) were given their consent forms to sign by the investigator at the time of admission for surgery. There was a cover letter (Appendix C) accompanying the consent form briefly explaining the study. The subjects were also given a copy of the cover letter and consent form to keep. The consent forms were collected by the investigator. Each group was asked at this time if they had any questions of the investigator about the consent forms or the cover letters and if there was something they needed to have explained. The subjects were informed that they could choose not to participate at anytime and would not be included in the study.

The demographic tool and STAI questionnaire were given to all subjects upon admission to the surgical waiting area. The investigator gave the subjects the forms and collected them after completion by the subjects. All forms were completed and collected prior to the subjects being called into the Same-Day Surgery area where they were prepared for surgery.

Tools

A demographic tool was used to collect demographic information. This tool was developed by the investigator from a review of current literature as to the identification of important independent variables that would allow identification of similarities and differences between the two groups. Items included: age, educational level, religion, marital status, previous surgical experience, attendance at the structured preoperative teaching class, occupation, type of hysterectomy, and reason for the hysterectomy. Race was not included in the demographic tool by an oversight, but as the investigator talked to each subject during the study, it was discovered that there was only one individual who was not of the caucasian race, and she was Hispanic.

The tool for assessing anxiety was the Spielberger STAI. It is a self-reported, standardized tool of 40-items for assessing acute (State) and chronic (Trait) levels of anxiety. The items are short statements representing present and

usual feelings in a Likert format. High scores indicate a high anxiety level. The alpha reliability coefficient range for the STAI is .83 to .92. The test-retest reliability range is .16 to .54 (Spielberger, 1983).

Statistical Analyses

Data analysis was performed using the Statistical Package for the Social Sciences (SPSS) system and Systat.

The independent variable was the preoperative teaching class. The dependent variable was the state anxiety level as measured by the Spielberger STAI. The trait anxiety was identified as an extraneous variable.

The statistical methods were the Student's t-test to measure if there was a statistically significant ($p < .05$) difference between the mean State Anxiety level scores of the control group and the experimental group and ANCOVA to correct for the error of variance by the Trait Anxiety Scores.

Human Subjects' Rights Committee Approval

A description of the study which included the

purpose, hypothesis, theoretical framework, methodology, course outline, and letters of approval were submitted to the Human Subjects' Rights Committee of the Department of Nursing at the University of Nevada, Las Vegas. Committee approval was obtained and data collection was started in February, 1992 and completed in June, 1992. See Appendix F. Approval was also obtained from the Institutional Review Board at the hospital in St. George in January 1992. See Appendix G.

Chapter IV

FINDINGS AND DISCUSSION

Description of the Sample

The sample population consisted of 20 subjects in the experimental group and 20 subjects in the control group. To be included in the study subjects had to be scheduled for a hysterectomy between February, 1992 and June, 1992. The experimental group was comprised of subjects who attended a preoperative teaching class prior to their scheduled surgery. Subjects in the control group were women scheduled for surgery during this same time period who consented to fill out the consent form, demographic information form, and questionnaire at the time of their admission. All participation was voluntary and none requested early removal from the study. If individuals assigned to the experimental group could not attend the preoperative teaching class they were eliminated from participation in the study. Of those who consented to be in the study, subjects were eliminated if demographic information revealed a diagnosis of pre-cancer or cancer as the reason

for the hysterectomy due to the expected increased anxiety produced by such a diagnosis. Other criteria for elimination from the study included having an occupation as a Licensed Practical Nurse or Registered Nurse because of their presumed knowledge base affecting the state anxiety levels. No subjects requested not to be included in the study after consenting to participate.

The frequency distribution of age is presented in Table 1. The experimental group ranged in age from 19 to 69 years with 95% of them being under 59 years of age. The majority of the control group were younger with 90% being under 49 years of age. The range of ages for the control group was broader than the experimental group with the youngest being 22 and the oldest being in the 70 to 79 age group.

The majority of the subjects in both groups were married with 95% of the experimental group being married and 85% of the control group married (Table 2). There was one single woman in the experimental group having a hysterectomy and in the control group there were two individuals divorced and one separated. There were no separated or

Table 1

Frequency Distributions for Experimental and Control Group by Age (Experimental Group n = 20, and Control Group n = 20)

Age in Years	Experimental		Control	
	Frequency	Percent	Frequency	Percent
19 to 29	2	10	5	25
30 to 39	5	25	3	15
40 to 49	8	40	10	50
50 to 59	4	20	0	0
60 to 69	1	5	1	5
70 to 79	0	0	1	5
Total	20	100	20	100

Table 2

Frequency Distribution for Experimental and Control
Group by Marital Status and Religious Affiliation
(Experimental Group n = 20, Control Group n = 20)

<u>Marital</u> <u>Status</u>	Experimental		Control	
	Frequency	Percent	Frequency	Percent
Single	1	5	0	0
Married	19	95	17	85
Separated	0	0	1	5
Divorced	0	0	2	10
Total	20	100	20	100

<u>Religious</u> <u>Affiliation</u>	Experimental		Control	
	Frequency	Percent	Frequency	Percent
LDS	17	85	18	90
Catholic	1	5	0	0
None	2	10	2	10
Total	20	100	20	100

divorced individuals in the experimental group.

The predominant religious affiliation of both the experimental and control groups was the Latter Day Saint (LDS) religion (Table 2). In the experimental group 85% were of this faith and the control group had the bigger share with 95% being of the LDS faith. There was one individual of the Catholic religion and two individuals identified no religious affiliation in the experimental group and another two individuals in the control group identified no religious affiliation.

The majority of both groups had either graduated from high school or attended some college, but not obtained a degree (Table 3). Fourteen (75%) of the experimental group fell in these two categories and 16 (80%) of the control group had completed high school or attended college. There were equal numbers (10%) in each group who did not complete high school and equal numbers in both groups who had obtained some type of college degree.

The majority of the control group (75%) worked

Table 3

Frequency Distributions for Experimental and Control Groups by Education Level (Experimental Group n = 20, Control Group n = 20)

	Experimental		Control	
Highest Level of Education	Frequency	Percent	Frequency	Percent
<High School	2	10	2	10
GED	1	5	0	0
High School	11	55	8	40
College, no Degree	4	20	8	40
AD	0	0	1	5
BS	2	10	1	5
Total	20	100	20	100

outside the home and of this number most of the women worked full-time (Table 4). In the experimental group 60% of the women worked outside the home with a larger percentage of them working full-time (83.3%) than those women who worked full-time (53.3%) in the control group.

Comparison of the experimental and control groups in relation to having had previous surgery is presented in Table 5. The groups appear nearly equal with a total of 16 (80%) in the control group having had previous surgery as compared to 15 (75%) in the experimental group. In assessing the types of previous surgery experienced by each group, 13 (65%) of the control group as opposed to 11 (55%) of the experimental group had experienced some type of previous abdominal surgery requiring hospitalization, anesthesia and an abdominal incision. General comparison of the experimental group and control group demographically found the groups to be very similar. However, no statistical analysis of equivalency was performed.

Table 4

Frequency Distributions for Experimental and
Control Groups by Work, Full or Part-time
(Experimental Group n = 20, Control Group n=20)

<u>Work</u>	<u>Experimental</u>		<u>Control</u>	
	<u>Frequency</u>	<u>Percent</u>	<u>Frequency</u>	<u>Percent</u>
Yes	12	60	15	75
No	8	40	5	25
Total	20	100	20	100
Full-time	10	83.3	8	53.3
Part-time	2	16.7	7	47.7
Total	12	100	15	100

Table 5

Number of Subjects with Previous Surgery

	<u># Yes</u>	<u>Percent</u>	<u># No</u>	<u>Percent</u>
Experimental	15	75	5	25
<u>Control</u>	<u>16</u>	<u>80</u>	<u>4</u>	<u>20</u>

State-Trait Anxiety Inventory Scores

Scores on the State Anxiety section of the Spielberger Self-Evaluation questionnaire may range from 20 to 80 with the higher scores indicating high State Anxiety and the lower scores indicating low State Anxiety levels. State Anxiety scores on admission ranged from 23 to 60 for the Experimental Groups subjects and 20 to 71 for the Control Group subjects.

Table 6 displays the means and standard deviations of the State Anxiety Scores for the both groups. The experimental group had a mean State Anxiety Score of 39.95 with a standard deviation of 10.339 and the control group had a higher mean State Anxiety Score, 45.40, and a larger standard deviation, 14.281. The mean scores, broken down by age, for the age 40 or under age group was 44.6 and for age 40 and older was 41.8. Also, the mean State Anxiety scores of all women having had previous surgery was 45.290 while the mean score of those women who had never had surgery was lower at 34.3. This will be discussed in the next chapter.

Table 6
Means and Standard Deviations for the State
Anxiety Scores of the Experimental and Control
Groups

STATE ANXIETY	n	\bar{X}	SD
Experimental Group	20	39.950	10.339
Control Group	20	45.400	14.281

Hypothesis

Hysterectomy patients who attend a structured preoperative teaching class will demonstrate on admission for surgery a significantly different level of State Anxiety as measured by the Spielberger (1977) Self-Evaluation Questionnaire (STAI) than those hysterectomy patients who do not attend the structured preoperative teaching class.

A Student's two-tailed probability t-test on the State Anxiety Scores of the subjects in this research was conducted (Table 7). The $F = 1.90792$ demonstrated that the variance of the groups were not statistically different so the pooled variance of t was used to determine the significance of difference between groups. There was no significant difference ($t = 1.382$, $p = 0.175$) at the significance level selected ($p < .05$). Also, a two-tailed probability t-test was done on the difference between the State Anxiety Scores and the Trait Anxiety Scores (Table 8). Further scrutiny of data showed a diversity among the Trait Scores, so to control the perceived error of variance an analysis of covariance (ANCOVA) was performed

Table 7

T-Tests Comparing Experimental Group (n = 20) and
Control Group (n = 20) State Anxiety Scores on
Spielberger Self-Evaluation Questionnaire (STAI) on
admission to hospital for surgery

	\bar{X}	<u>SD</u>	F	p	t-pooled	2-tail prob
Exp.	39.95	10.34				
			1.907	>.05	1.382	0.175
Cont.	45.40	14.28				

Table 8

T-Test Comparing Differences between Trait Anxiety
and State Anxiety Scores of Experimental Group (n
= 20) and Control Group (n = 20)

	\bar{X}	<u>SD</u>	F	p	t-pooled	2-tail prob
Exp.	1.085	6.966				
				>.05	1.713	0.095
Con.	7.630	15.607				

using the Trait Scores as the covariate. The results of that statistical analysis are presented in Table 9. It revealed that indeed there was a significant difference ($p = 0.032$) between the Trait Scores of the Experimental and Control Groups which could have affected the State Anxiety Scores. All of the assumptions of ANCOVA were met which would increase the significance of these results. A power test was done and revealed a score of 0.37 which, being low, would increase the chance of making a Type II error in accepting the null hypothesis. The low power score, supports the repetition of the study using a larger number of subjects, with at least 64 (Munro, Visintainer & Page, 1986) per group. The hypothesis that there would be a significant difference between the State Anxiety Scores of the Experimental and Control Groups was not supported.

Table 9

Summary of Analysis of Covariance

<u>Source</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Trait	700.156	1	700.156	4.977	0.032
Class	393.252	1	393.252	2.795	0.103
error	5205.594	37	140.692		
Total	6299.002	39	1234.100		

Chapter V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The purpose of this study was to determine if, at the time of admission to the hospital, state anxiety levels would be significantly different among women undergoing a hysterectomy if a structured preoperative teaching class was provided. To test this concept an experimental Randomized Control Group After Only Design (Holm & Llwellyn, 1986) was utilized. The experimental group was composed of 20 hysterectomy patients scheduled for surgery who attended a structured preoperative teaching class before surgery. The control group was composed of 20 hysterectomy patients who did not attend the preoperative teaching class. All participation was on a voluntary basis. Potential subjects were contacted by the investigator to determine the subject's willingness to participate. The subjects, except for one hispanic woman were all caucasian, and predominately of the Church of Jesus Christ of Latter Day Saint (LDS) religion. The conceptual framework used as a basis for this study was the

prevention mode of intervention from the Neuman Systems Model (1989).

The women randomized into the experimental group attended a one hour structured preoperative teaching class taught by the investigator before their admission for surgery. The women in the control group were asked to participate in the study before admission for surgery. Both the experimental and control group subjects filled out the Spielberger Self-Evaluation Questionnaire (STAI) to obtain state and trait anxiety scores on admission for surgery. There was not a significant difference ($p < .05$) found after performing a t-test comparing State Anxiety scores ($t = 1.382$, $p = 0.175$) and an ANCOVA between the Trait Anxiety Scale scores of the experimental and control groups in this study.

Comparison of State Anxiety Scores

The State Anxiety mean score was lower among the experimental group of subjects than the control group. This difference was not found to be statistically significant following performance of an ANCOVA where the Trait Anxiety Score was

identified as the covariate contributing to the error of variance between groups. This lack of a statistically significant difference may also be related to the education level of the participants as revealed in the study by Domar, Everett, and Keller (1989) when they found that individuals with higher education displayed a higher State Anxiety score.

When the State Anxiety scores of the subjects were grouped differently there were some interesting results. The mean State Anxiety score of all those subjects under forty having hysterectomies was lower than the control group's mean score, but higher than the experimental group's mean score. This might indicate that these women who were still of childbearing age might be more anxious. The mean score of subjects under forty in the experimental group was slightly lower than the mean State Anxiety score for the entire experimental group. This would indicate that the preoperative teaching class did lower their state anxiety. Also, when comparing State Anxiety scores of all the subjects who had previous surgery and

those who had not, the women with previous surgery had a mean score higher than the mean score of those who had never had surgery. No statistical analysis was done to see if these scores were significant. In the literature reviewed, there was no distinction made about patients who had previous surgery, other than in the Domar, Everett, and Keller (1989) research they eliminated those individuals with previous heart surgery from their study.

Hypothesis

The hypothesis tested in the study was that hysterectomy patients who attend a structured preoperative teaching class would demonstrate on admission for surgery a significantly ($p < .05$) different level of anxiety as measured by the 1977 version of the Spielberger Self-Evaluation Questionnaire (STAI) than those hysterectomy patients who do not attend the structured preoperative teaching class.

This hypothesis was not supported. Hysterectomy patients who attended the structured preoperative teaching class did not show a

significantly different level of anxiety as measured by the STAI. There was a downward trend in the State Anxiety Scores of the Experimental Group that attended the preoperative teaching class prior to their hysterectomy surgery.

Discussion of Preoperative Teaching Class

A factor which may have influenced the outcome was the preoperative class timing and presentation. The course was originally set up to be taught at the hospital on a Saturday afternoon. Several potential subjects had to be deleted from the study because they were unable to attend the course on Saturday. Many of the subjects work and found it difficult to take off time for class when they were already going to have some extended time off to recover from surgery. Also many of the women had a family gathering of some type on the Saturday before their surgery to spend time with family members. For these reasons another class time was set up for an evening during the week so that these women could attend the class and increase the experimental group size. Cupples (1989) found that timing made no difference in anxiety levels, so for

this reason it was considered acceptable to have two classes at different times for the experimental group to attend.

The experimental group subjects all seemed to enjoy the preoperative teaching class. Several subjects after the class, commented on the helpfulness of the information presented. Many of the women had feared that they would not be able to function sexually postoperatively, as they had prior to the surgery. One individual and her spouse believed that once a woman had a hysterectomy she would never be able to have sexual intercourse again. This woman was thrilled to be able to inform her spouse that the hysterectomy would not end their sexual activity. They had postponed a much needed surgery because of this perceived loss.

The content in the class seemed to meet the needs of the experimental group subjects. They practiced the skills presented in the class and were very supportive of each member's efforts in turning, coughing and deep breathing and getting in and out of the bed. In analyzing the

nonsignificant difference between the experimental and control group, it may be due to some overlap of content between the information provided by the researcher and the admitting nurse at the hospital. The admitting nurse was not aware of which group the subjects were assigned at the time they met with her for the generic preoperative instruction. Duplication of information such as turning, coughing, and deep breathing and what was a hysterectomy, was probably provided to both groups. The difference was the presentation of these subjects with an overhead transparency and actual practice of the skills for the experimental group. The subjects did a lot of sharing of feelings about having a hysterectomy and developed a relationship with fellow class members that extended to the time they were hospitalized. The investigator observed the experimental group subjects visiting each other in their rooms for a report of postoperative progress. This "bonding" was something not considered in the development of this study.

Another idea to consider related to the class, was the possibility that the class may not have

filled another need of the participants. The number under forty having hysterectomies appears above the national average and may contribute to stress related to childbearing. Some type of counseling may have needed to be included, which the investigator could not give. The emotions associated with the ability or inability to bear children, especially of the LDS faith may have had an impact on the anxiety levels of those women under forty years of age.

Findings Related to Framework

The primary prevention mode of intervention of the Neuman Systems Model (1989) was the basic framework used in this research. This model describes an accordion-like flexible line of defense around an individual's core structure, that can be strengthened and expanded to protect the core when faced with stressful situations. One of the ways to expand this area between the flexible line of defense and the normal line of defense surrounding the core is to provide information that would help the individual cope with a stressful situation such as surgery, thereby reducing the

anxiety about the situation and protecting the core.

In this research the State Anxiety levels were not significantly lower in the experimental group that received the information in a structured format. This lowered State Anxiety level may have made a difference with some individuals in their ability to handle the stress of surgery. The nurse looks at the individual's response to illness, and since we are human beings and each one is different, it may be presumptive to group individuals and state that nothing statistically significant happened, but with some individuals it may have been practically significant to them. The findings would support the Neuman System Model approach that primary preventive interventions can make a difference in how an individual responds to intrapersonal stressors that threaten the core structure because the State Anxiety Scores were lower.

Implications for Nursing

The nurse is the health care provider who spends most of the time with patients and does a

lot of spontaneous teaching. This teaching makes a difference, but is not perceived by management as an important role of the nurse (low visibility). Although this study did not reveal a significant difference in State Anxiety Scores between the experimental and control groups, appreciation was expressed to the investigator by individuals in the experimental group for taking the time to develop a class that answered many of their questions. The comments indicated that the patients did not feel they could ask similar questions of their physician or the admitting nurse because they were so busy. Some individuals in the control group attempted to ask questions of the investigator about their surgery at the time they filled out the questionnaire. The investigator would ask them to fill out the questionnaire and then their questions would be answered. Nurses are still the ones sought out by individuals to answer questions.

Recommendations for Further Study

The following recommendations for further study are presented based on the results of this

research:

1. This study should be repeated using a larger sample of subjects. The fact that such a small sample demonstrated such a small power would warrant repetition with a larger group.

2. The timing and presentation method of the preoperative teaching class should be further investigated. Many of the women worked and found it difficult to take time off to attend the class. Also, the educator's qualifications to present content effectively may need to be established.

3. The effects of Neuman's (1989) primary, secondary, and tertiary prevention strategies used as educational intervention need further investigative study. This would support the use of this model in the nursing practice.

4. More information about the content of the non-structured presentation should be elicited to provide a better comparison.

5. As in the study of Domar, Everett, and Keller (1989) the attendance of significant others at the preoperative education class may help support the surgical patient and assist in lowering

their anxiety levels. For this reason it might be helpful to expand the class to include significant others and see the effects on anxiety levels.

6. Many of the women were not included in the study because of inability to attend the preoperative teaching class due to a "family gathering" prior to their surgery. Further investigation of this "bonding" before a perceived traumatic event such as surgery might assist nurses in their practice of supporting the surgical patient.

APPENDICES

APPENDIX A
PREOPERATIVE EDUCATION COURSE

PATIENT EDUCATION OBJECTIVES

After attendance at the preoperative education session, the patient will be able to:

ANATOMY AND PHYSIOLOGY:

1. identify the location of the female reproductive organs and specific anatomical structures.
2. explain the functions of the female reproductive organs.
3. explain what anatomical structures are removed in partial and total hysterectomies and the physical and emotional effects on the body.
4. explain the difference between vaginal and abdominal hysterectomies, where the surgical sites are and appearance of site

PREOPERATIVE ROUTINE:

1. identify the preadmission procedure they will do at the hospital
2. state the components of the preoperative routine the evening before and morning of surgery

3. identify where and when they will report the morning of surgery
4. state what will occur in the surgical prep area after arrival

INTRAOPERATIVE ROUTINE:

1. state the approximate length of surgery
2. state the procedure for the family to follow:
 - a. waiting area
 - b. how to check on patient's progress
 - c. where to meet the physician
3. identify routine during surgery

POSTOPERATIVE ROUTINE AND RECOVERY:

1. identify recovery room and length of stay there
2. identify the gynecological unit and room set up
3. define purposes of postoperative routines
4. demonstrate postoperative routines

they will be required to do

5. identify purpose and how to ask for analgesics

6. identify tubes, IV therapy, amount of bleeding, suture clamps that they may experience

7. state emotions may experience and reasons why

8. state stresses placed on body by surgery

9. identify need for hormone therapy

10. state effects of surgery on sexual intercourse

11. state visiting routine

12. state approximate length of hospital stay

13. state components of discharge teaching

14. identify time of return to physician's office

POSTOPERATIVE COMPLICATIONS:

1. state possible postoperative

complications

2. state actions to be taken to help
prevent complications

APPENDIX B
COVER LETTER AND CONSENT FORM:
EXPERIMENTAL GROUP

February 15, 1992

Dear _____:

I am a registered nurse and I am presently conducting a study of the effects of a preoperative teaching class on hysterectomy patients. This study has been approved by Dixie Regional Medical Center.

I would like to explain a few of details of the study that are important for you to know at this time. There will be two groups of hysterectomy patients. One group will attend a preoperative teaching class and the other group will not. The preoperative teaching class will be approximately 1 hour in length and information about hysterectomy surgery and recovery will be presented.

Those women who attend the preoperative teaching class and those who do not will be given a consent form and a questionnaire to fill out the morning of their surgery.

You have been selected to participate in the group that attends the preoperative teaching class. Your participation in the class and study is completely voluntary. You have the right to refuse to participate at this time and the right to withdraw later without jeopardy to your medical care at Dixie Regional Medical Center. I believe that your participation in this class and study will be informative and of benefit to you and future patients.

I assure you of the confidentiality of the information collected in this study. Your answers will not be linked to your name and all information obtained will be reported as group data only. Your name will only be used in compiling individual questionnaires.

Thank you!

Sincerely,

Judy Fillmore, R.N., B.S.N.
Graduate Student, Department of Nursing
University of Nevada, Las Vegas

I agree to participate in a research study involving the effects of preoperative teaching on hysterectomy patients by Judy Fillmore, R.N., B.S.N., Graduate Student, Department of Nursing, University of Nevada, Las Vegas in conjunction with Dixie Regional Medical Center. I understand that my consent and participation in this study is completely voluntary and that I may withdraw from the study at any time without jeopardy to my care at Dixie Regional Medical Center.

I understand that all information given will remain confidential and reported only as group data. All data will be converted to a code number so my name will not be associated with the information. All data will be used for research purposes only. I realize that there will be no monetary compensation or additional charges to me for my participation in this research study.

Any questions or concerns may be directed to Judy Fillmore, R.N. at 673-5407 or Dr. Rosemary Witt at 702-739-3360.

I understand the information provided to me regarding this study and my participation in it. All of my questions have been answered to my satisfaction. My signature on the form, indicates that I consent to participate in this research study.

_____ Patient's Signature	_____ Date
_____ Investigator's Signature	_____ Date
_____ Witness's Signature	_____ Date

APPENDIX C
COVER LETTER AND CONSENT FORM:
CONTROL GROUP

February , 1992

Dear _____:

I am a registered nurse and I am presently conducting a study of the effects of a preoperative teaching class on hysterectomy patients. The study has been approved by Dixie Regional Medical Center.

I would like to explain a few details of the study that are important to you. Your participation in the study will involve filling out a consent and information form and a questionnaire at this time. Your participation in this study is completely voluntary. You have the right to refuse to participate at this time without jeopardy to your medical care at Dixie Regional Medical Center. I believe that your participation in this study will be of benefit to you and future patients.

I assure you of the confidentiality of the information collected in this study. Your answers will not be linked to your name and all information obtained will be reported as group data only. Your name will only be used in compiling individual questionnaires.

Thank you!

Sincerely,

Judy Fillmore, R.N., B.S.N.
Graduate Student, Department of Nursing
University of Nevada, Las Vegas

I agree to participate in a research study involving the effects of preoperative teaching of hysterectomy patients by Judy Fillmore, R.N., B.S.N., Graduate Student, Department of Nursing, University of Nevada, Las Vegas in conjunction with Dixie Regional Medical Center. I understand that my consent and participation in this study is completely voluntary and that I may withdraw from the study at any time without jeopardy to my medical care at Dixie Regional Medical Center.

I understand that all information given will remain confidential and reported only as group data. All data will be converted to a code number so my name will not be associated with the information. All data will be used for research purposes only. I realize that there will be no monetary compensation or additional charges to me for my participation in this research study.

Any questions or concerns may be directed to Judy Fillmore, R.N. at 673-5407 or Dr. Rosemary Witt at 702-739-3360.

I understand the information provided me regarding this study and my participation in it. All of my questions have been answered to my satisfaction. My signature on this form, indicates that I consent to participate in this research study.

Patient's Signature

Date

Investigator's Signature

Date

Witness's Signature

Date

APPENDIX D
SPIELBERGER STATE-TRAIT ANXIETY INVENTORY
AND DEMOGRAPHIC INFORMATION TOOL

SELF-EVALUATION QUESTIONNAIRE

Developed by Charles D. Spielberger
in collaboration with
R. L. Gorsuch, R. Lushene, P. R. Vagg, and G. A. Jacobs

STAI Form Y-1

74

Name _____ Date _____ S _____
Age _____ Sex: M _____ F _____ T _____

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then blacken in the appropriate circle to the right of the statement to indicate how you feel *right now*, that is, *at this moment*. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

NOT AT ALL
SOMEWHAT
MODERATELY SO
VERY MUCH SO

- | | | | | |
|--|---|---|---|---|
| 1. I feel calm | ① | ② | ③ | ④ |
| 2. I feel secure | ① | ② | ③ | ④ |
| 3. I am tense | ① | ② | ③ | ④ |
| 4. I feel strained | ① | ② | ③ | ④ |
| 5. I feel at ease | ① | ② | ③ | ④ |
| 6. I feel upset | ① | ② | ③ | ④ |
| 7. I am presently worrying over possible misfortunes | ① | ② | ③ | ④ |
| 8. I feel satisfied | ① | ② | ③ | ④ |
| 9. I feel frightened | ① | ② | ③ | ④ |
| 10. I feel comfortable | ① | ② | ③ | ④ |
| 11. I feel self-confident | ① | ② | ③ | ④ |
| 12. I feel nervous | ① | ② | ③ | ④ |
| 13. I am jittery | ① | ② | ③ | ④ |
| 14. I feel indecisive | ① | ② | ③ | ④ |
| 15. I am relaxed | ① | ② | ③ | ④ |
| 16. I feel content | ① | ② | ③ | ④ |
| 17. I am worried | ① | ② | ③ | ④ |
| 18. I feel confused | ① | ② | ③ | ④ |
| 19. I feel steady | ① | ② | ③ | ④ |
| 20. I feel pleasant | ① | ② | ③ | ④ |



Consulting Psychologists Press, Inc.
3803 E. Bayshore Road • Palo Alto, CA 94303

SELF-EVALUATION QUESTIONNAIRE

STAI Form Y-2

Name _____ Date _____

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then blacken in the appropriate circle to the right of the statement to indicate how you *generally* feel. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe how you generally feel.

	ALMOST NEVER	SOMETIMES	OFTEN	ALMOST ALWAYS
21. I feel pleasant	①	②	③	④
22. I feel nervous and restless	①	②	③	④
23. I feel satisfied with myself	①	②	③	④
24. I wish I could be as happy as others seem to be	①	②	③	④
25. I feel like a failure	①	②	③	④
26. I feel rested	①	②	③	④
27. I am "calm, cool, and collected"	①	②	③	④
28. I feel that difficulties are piling up so that I cannot overcome them	①	②	③	④
29. I worry too much over something that really doesn't matter	①	②	③	④
30. I am happy	①	②	③	④
31. I have disturbing thoughts	①	②	③	④
32. I lack self-confidence	①	②	③	④
33. I feel secure	①	②	③	④
34. I make decisions easily	①	②	③	④
35. I feel inadequate	①	②	③	④
36. I am content	①	②	③	④
37. Some unimportant thought runs through my mind and bothers me	①	②	③	④
38. I take disappointments so keenly that I can't put them out of my mind	①	②	③	④
39. I am a steady person	①	②	③	④
40. I get in a state of tension or turmoil as I think over my recent concerns and interests	①	②	③	④

DEMOGRAPHIC INFORMATION

NAME: _____
CODE: _____ (Investigator will assign)

Please, circle the number in front of your correct response:

AGE:

- | | | |
|----------|----------|----------|
| 1. 19-29 | 4. 50-59 | 7. 80-89 |
| 2. 30-39 | 5. 60-69 | 8. 90-99 |
| 3. 40-49 | 6. 70-79 | |

MARITAL STATUS:

- | | |
|--------------|-------------|
| 1. Single | 4. Divorced |
| 2. Married | 5. Widow |
| 3. Separated | |

RELIGIOUS AFFILIATION:

- | | |
|---------------|----------------|
| 1. LDS | 4. Jewish |
| 2. Catholic | 5. Other _____ |
| 3. Protestant | 6. None |

Highest level of education:

- | | |
|------------------------------------|---------------------|
| 1. Did not complete High School | 5. Associate Degree |
| 2. GED | 6. Bachelors Degree |
| 3. High School Diploma | 7. Masters Degree |
| 4. Attended college, but no degree | 8. Doctorate Degree |

Do you work outside the home?

1. yes
2. no

If you work outside the home, what is your occupation or profession?

Is this work: _____

1. Full time
2. Part time

Did your physician's office inform you that you would be asked to participate in this study?

1. yes
2. no

Have you had surgery before?

1. yes
2. no

If you have had surgery before, please write what type it was.

Why are you having a hysterectomy?

Are your ovaries going to be removed with you uterus?

1. yes
2. no

Did you attend the preoperative educational class for hysterectomy patients?

1. yes
2. no

APPENDIX E

PERMISSION FOR USE OF SPIELBERGER
STATE-TRAIT ANXIETY INVENTORY



Consulting
Psychologists
Press, Inc.

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January 30, 1992

Judy Fillmore
1176 W 670 N
St. George, Utah 84770

Dear Ms. Fillmore,

You recently requested permission to "use" the *State-Trait Anxiety Inventory* for research in your thesis on the effects of preoperative education upon anxiety levels of hysterectomy patients on admission for surgery. It is a precondition of Consulting Psychologists Press, Inc. to have the qualifications of our customers on file prior to releasing any restricted materials. As you have already completed a Purchaser Qualification Form which meets the restriction level of the STAI and have been assigned customer #H1811, you have "permission to use" the *State-Trait Anxiety Inventory*. Thank you.

Sincerely,


Lisa Sisneros
Permission Specialist

APPENDIX F
HUMAN RIGHTS APPROVAL

UNIVERSITY OF NEVADA, LAS VEGAS

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PROTOCOL FORM APPROVAL SHEET

FOR RESEARCH INVOLVING HUMAN SUBJECTS

Log Number: _____

Title of Project: The effects of preoperative teaching on anxiety levels of
of hysterectomy patients

Investigator: Judy Fillmore

After reviewing this proposal, the members of the Department of Nursing, UNLV
Review Committee have indicated below their approval/disapproval of this proposal.

Signature of Committee Members

Approve

Disapprove

Melanie A. Zwickert, RN MSN

☒

Sue Wot RW MN

☒

Margaret Lewis RN Ph.D.

☒

The above named project is hereby approved/disapproved (circle one)

Date: 2/12/92

Margaret Lewis
Committee Chairman's Signature

APPENDIX G
INTERNAL REVIEW APPROVAL FROM HOSPITAL

INSTITUTIONAL REVIEW BOARD
Review Committee for Research with Human Subjects
DIXIE MEDICAL CENTER
St. George, Utah

Request for Approval of a NEW Project

1. TITLE AND NATURE OF STUDY: Thesis - for master's degree in nursing
"The effects of a preoperative teaching class on
the anxiety levels of hysterectomy patients."

It will be an experimental study with a control group and an
experimental group. The experimental group will receive preoperative
education. Anxiety levels of the hysterectomy patients will be evaluated
on admission by a questionnaire. All patients will sign consent forms

2. PROTECTION OF RIGHTS AND WELFARE OF SUBJECTS:
Are any inducements/remuneration offered to subjects? Yes ☒ No
(If yes, attach a separate sheet explaining justification for inducement.)

3. RISKS AND POTENTIAL BENEFITS:
Risks - minimal - possibility of increased knowledge increasing anxiety
Benefit - increased & improved nurse/client relations
increased knowledge of post-operative ~~return~~ care

4. THIS PROJECT INVOLVES: (Check appropriate space)

☐ Drug Trials ☐ New Medical Device ☐ Medical Records
☐ Isotopes or X-Rays ☐ Other: _____

5. CONTRACT OR GRANT NUMBER: /
AGENCY: _____

6. NAME OF PRINCIPAL INVESTIGATOR: Judy Fillmore
STREET ADDRESS: 1176 W. 6th N
CITY, STATE, ZIP: St. George, UT 84770

Judy Fillmore 1/30/92
Signature of Principal Investigator Date

===== Your project and consent document have been reviewed and approved as: =====

☐ High Risk ☐ Moderate Risk ☐ Minimal Risk ☒ No Risk

by the Human Subject's I.R.B. by the following process:

☒ Full Board Review ☐ Expedited Review ☐ Exemption 46.101(b) Par. _____

1-30-32
DATE APPROVED

Barbara Jordan
I.R.B. CHAIRPERSON

Continuing Review Scheduled for: _____

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