

THE RELATIONSHIP OF A PRE-SURGERY VISIT BY AN  
OPERATING ROOM NURSE TO THE ANXIETY LEVEL  
OF GYNECOLOGICAL PATIENTS

by

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A THESIS

Presented to

The University of Oregon School of Nursing  
and the Graduate Council  
of the University of Oregon Medical School  
in partial fulfillment  
of the requirements for the degree of  
Master of Science

June 9, 1972

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This study was supported by a traineeship from  
the United States Public Health Service, Grant Number

2 All NU 00035-14

## ACKNOWLEDGMENTS

The author wishes to express her appreciation to May Rawlinson, Ph. D. , Assistant Professor of Nursing and Medical Psychology, Lucile Gregerson, M. Ed. , Associate Professor, and Olga Keesling, M. S. , Assistant Professor of Clinical Nursing for their assistance during the preparation of this study.

Acknowledgment is also due to Paul Zuelke, M. D. , John Bubalo, M. D. , J. Oppie McCall, M. D. , Ernest Waterman, M. D. , Leroy Casperson, M. D. , Robert Doughton, M. D. , and John DeMaria, M. D. , for their interest and cooperation in this study.

The author also wishes to express her appreciation to Cheryl Labavitch, head nurse in the operating room at St. Vincent Hospital, and to the patients whose participation made this study possible.

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## CHAPTER I

### INTRODUCTION

#### Statement of the Problem

The anticipation of an operative procedure, irrespective of magnitude, carries with it many fears. It should be of great concern to those providing care to help allay those fears or to help the patient cope with the anxieties of surgery long before he or she has entered the surgical suite.

Eckenhoff states that marked apprehension in a patient makes him a potential candidate for death in the operating room and cites four cases in which the patient died during, or immediately after, the operation due to marked apprehension. (14) In a study of 50 pre-operative patients at Vanderbilt University Hospital, Depee found that fear of death was the type of fear expressed most often by patients. (10).

According to Dumas, the need for psychological preparation for surgery is probably as great as the physical preparation. Dumas and Leonard found, in their study of 51 gynecological patients, that there was a lower incidence of post-operative vomiting in those patients who



had been exposed pre-operatively to a special nursing process directed toward helping the patient attain a suitable psychological state for surgery. (12)

In an on-the-job practical research study by Healy involving 321 patients, it was found that an experimental group of patients who had been given complete pre-operative instructions required less narcotics, had fewer post-operative complications, and were discharged sooner than those in the control group who had received the usual pre-operative care. (21)

Johnson tested the hypothesis that the patient who was informed about the experience of elective abdominal surgery and was encouraged to communicate his concerns would make a faster and more comfortable recovery. There was a significant difference between the experimental and control groups, with the experimental group being discharged one to one and one-half days prior to the control group. (24)

Baudry and Wiener have hypothesized that patients in a pre-operative period who are psychologically prepared for their entire surgical experience will tolerate the ordeal better than a group who have not had the benefit of such preparation. (2)

In discussing "The Value of the Pre-Operative Visit by the Anesthesiologist," Egbert et al. demonstrated that pre-operative medication alone cannot allay pre-operative apprehension. Those

patients who had received a pre-operative barbiturate but no pre-operative visit were drowsy but not necessarily calm upon arrival in the operating room. Those who had been visited pre-operatively by the anesthesiologist, but had not received a barbiturate pre-operatively, were calm even though not drowsy. (16)

In an Unpublished Masters' Thesis, Dooley studied ten patients in an attempt to discover what happened when an operating room nurse visited each patient pre-operatively. In this study the nurse provided relevant information about the surgical period, gave suggestions to decrease the patient's post-operative discomforts, and found out what the patient's feelings were in the hope that talking about these things would be helpful. The visit was seen as being helpful by one-half the patients in that the operating room nurse offered encouragement and gave emotional support by spending time with them. Although the finding did not show as great an effect as the investigator had hoped for, it was considered noteworthy and did indicate that pre-operative visits by an operating room nurse are useful. (11)

It is expected that other members of the team have contributed also to the preparation of the patient. The surgeon should inform the patient about the operative procedure itself and the risks involved. The anesthesiologist inquired about allergies or contra-indications to anesthesia. The ward nurses play a role in pre-operative teaching as to the importance of turning and coughing post-operatively and have discussed enemas, surgical shave, levine tubes, and other factors.

Surgical intervention is a very real and threatening thing for any patient. Can not the operating room nurse help the patient come through this difficult time during the immediate operative period with the least amount of anxiety and in the best possible condition? It would seem that professional nurses from the operating room are in an especially useful, but seldom used, capacity to help relieve some of the fears and worries experienced by the patient about to undergo surgery. By visiting the patient pre-operatively and establishing some degree of rapport, it would seem that the operating room nurse would be in a position to help the patient to deal with the stress of the situation by answering questions, offering explanations, clarifying misconceptions, and allowing the patient to ventilate feelings.

#### Purpose of the Study

The purpose of this study was to determine if the operating room nurse could help the patient undergoing major gynecological surgery deal with her anxieties and cope with the stress of the situation to a significant degree through the establishment of rapport during a pre-operative visit the evening prior to surgery.

#### Statement of the Hypothesis

The hypothesis of this study was stated in the null form as follows: there will be no significant difference in the anxiety level

between patients undergoing major gynecological surgery who have been visited pre-operatively by an operating room nurse, and those patients who have not been visited pre-operatively by an operating room nurse.

### Assumptions

For the purposes of this study, it was assumed that all patients about to undergo surgery experience some degree of anxiety, and that pre-operative preparation is important to the patient for obtaining optimal recovery post-operatively. It was also assumed that all professional nurses are capable of and responsible for the pre-operative preparation of surgical patients, and that operating room nurses are able to establish rapport with patients undergoing surgery during the relatively brief pre-operative visit made the evening before surgery. It was also assumed that all patients were able to recall with some accuracy how they felt at a specific pre-operative time.

### Definitions

For the purposes of this study, the independent variable of an ORN visit (operating room nurse visit) was a short and informal pre-surgical visit designed to establish rapport between the operating room nurse and the patient. The patient was allowed to ventilate feelings, misconceptions were clarified, questions were answered,

and explanations were given as to the expected pre-operative, operative, and post-operative procedures.

In this study, the dependent variable of anxiety was operationally defined by scores on the Spielberger Trait-State Anxiety Inventory.

### Methodology

This study was of the experimental design and was conducted at a 450-bed private hospital on 30 surgical patients who underwent major gynecological surgery performed by any one of seven gynecologists. The operative schedules for a three-month period were reviewed to obtain the names of the gynecologists who performed the majority of the gynecological surgery at this particular hospital. The seven selected were either on the active or associate staff. A letter requesting permission to ask their patients to participate in the study was sent to each of these seven gynecologists. See Appendix B. A favorable response was obtained from all seven of them.

The Spielberger Trait-State Anxiety Inventory was used to measure the dependent variable of anxiety. It is composed of two sets of 20 questions each and is intended to measure the patient's level of trait anxiety and level of current or situational anxiety. See Appendix A. It was given pre-operatively and post-operatively to patients in both the experimental and control groups by the same nurse-

investigator. The pre-operative one was given on the day before surgery as soon as possible after admission of the patient to the hospital, and before the ORN visit took place in the experimental group. The post-operative test was given on the third or fourth post-operative day, depending on the patient's condition. Since it is a standardized test, it was not necessary to test for the reliability and validity.

The women patients were randomly assigned, by the use of numbers drawn out of a box, to either an experimental or a control group as their names appeared on the surgery schedule. There were N=15 experimental subjects and N=15 control subjects in the study. The experimental group differed from the control group in that, in addition to the "normal and routine" pre-operative preparation by the ward personnel, these patients were exposed to the independent variable of an ORN visit during the evening prior to their surgery. The control group was not exposed to a pre-operative visit by an operating room nurse, but received only the "normal and routine" pre-operative preparation by the ward personnel.

Attempts were made to control other variables by limiting the surgery to major gynecological procedures, either vaginal or abdominal approach. Only those patients who underwent surgery by any one of the seven gynecologists were included in the study. Neither the personnel in the operating room, the ward personnel, the gynecologists, nor the patients knew any of the details of the design of the study.

They were told only that a study regarding the care of patients undergoing gynecological surgery was being conducted.

The nurse-investigator introduced herself to the patient, told her that a study regarding the care of patients undergoing surgery was being conducted, and solicited her participation in such a study. The subject had to be able to read and write and be willing to answer the questionnaire both pre-operatively and post-operatively. On the State section of the Spielberger Anxiety Inventory, the patient was to respond as to how she felt at that particular moment, and this State section was always administered first as recommended in the test manual. The Trait section referred to how they generally felt.

The instructions were read through aloud by the nurse-investigator while the subject read silently to be certain that she understood her task. Visitors who were present were asked to leave the room for the few minutes that were required to complete the test. The nurse-investigator remained in the room while the subject responded to the questionnaire. Compliance with this study did not interfere with necessary nursing care of the patient.

The post-operative test was given three or four days post-operatively, depending on the patient's condition. The instructions were again read through with the subject. On the State-Anxiety portion of the test this time, however, the patient was asked to think back to the early morning hours of the day of surgery before she was given any

medication and to respond to the questionnaire as to how she felt at that particular time. The Trait-Anxiety portion was the same as before and referred to how she generally felt. This was given post-operatively as a double-check on the patient's trait anxiety.

It was during this post-operative visit that the subject was also asked questions to evaluate the ORN pre-operative visit. See Appendix A. Subjects in both the control and the experimental groups were asked these questions.

The ORN visits were made by the same nurse who is the head nurse on duty in the operating room during the evening shift, and were made only to the patients assigned to the experimental group. All the visits were made late in the evening after visiting hours. A guide for the pre-operative visit was followed by this nurse so that certain topics common to all surgical patients would be discussed. See Appendix A. The patient was first given every opportunity to respond to possible areas of concern and worry. If the patient did not avail herself of this opportunity, then the nurse presented the patient with topics of conversation involving the various areas. Any conversational interaction that transpired was recorded by the nurse as soon as possible after the visit, indicating who initiated the conversation. This guide was a tool used by Dooley in an Unpublished Masters' Thesis. (11) The nurse making the ORN visits was aware that a study was being conducted, but did not know the exact design of the



study. She introduced herself to the patients as a registered nurse from the operating room who made these pre-operative visits as a part of the normal hospital routine. She made no mention of any study. She also recorded the amount of time spent with each patient.

#### Procedure for Solution

Permission to conduct the study was obtained from the Director of Nurses at the chosen hospital. A letter was then sent to each of the seven gynecologists requesting their permission for the nurse-investigator to ask their patients to participate in the study. Assistance and cooperation were requested from the Operating Room Supervisor and the head nurse in the operating room on the evening shift in order that the pre-operative visits could be made on the gynecological patients assigned to the experimental group. The patients were asked for their willingness to participate in the study. The data were collected through utilization of the Spielberger Trait-State Anxiety Inventory, the pre-operative interview guide, and the post-operative ORN-visit evaluation form. The data were statistically analyzed, conclusions drawn, and recommendations made for further studies.

## CHAPTER II

### REVIEW OF THE LITERATURE AND RELATED STUDIES

#### Psychological Preparation of the Pre-Operative Patient

A number of studies have been directed towards determining the relationship between the psychological and physical preparation of the surgical patient in regard to the post-operative outcome. Attempts have been made to determine when preparation is most effective, what this preparation should be, and who should be responsible for it. Bird has said that the psychological care of patients is, in many respects, a "no man's land of surgery." Everyone has a claim on it, but no one really owns it. (5) Most hospitals have carefully written procedures and often use checklists to insure that the necessary physical preparations are carried out, but it is difficult to have a checklist which would indicate the psychological preparation. The condition of the pre-operative patient who requires little physical care can be as critical and his needs as great as the post-operative patient who demands constant attention. (10)

The pre-operative period is normally a stressful, anxiety-ridden time in a patient's life when the activities of the nurse may be particularly important in providing support and comfort as well as the

routine physical ministrations required. According to Dumas, the need for psychological preparation for surgery is probably as great as the physical preparation. (13) Beland feels that despite the virtual impossibility of eliminating the psychological stress of surgery, much can be done to minimize it. (3)

Baudry and Wiener have hypothesized that patients in a pre-operative period who are psychologically prepared for their entire surgery experience will tolerate the ordeal better than a similar group who have not had the benefit of such preparation. (2) Janis says that although there are few statistical data to substantiate systematically such an hypothesis, there seems to be a good deal of indirect evidence in the literature that patients who do poorly psychologically during their surgery course are, by and large, patients who have not been adequately prepared for the ordeal. (23)

In writing of the patient's needs for emotional support, Kaufman states:

The patient must be emotionally prepared to accept necessary surgery without undue anxiety and fear. Everything must be directed towards reducing the psychological stress and trauma of anesthesia and surgery to a minimum. The patient must receive the emotional support he needs and deserves during the immediate pre-operative periods . . . a properly utilized one-half to one hour of psychological preparation may give the patient sufficient emotional security to obviate preventable psychosomatic complications. Furthermore, it seems to me that such briefing reduces the patient's anxieties and fears to such an extent that

he takes the anesthetic better and has less post-operative pain and discomfort . . . And he seems to make speedier recovery from the effects of surgery than patients emotionally unprepared. This is equally true for emotionally normal patients as it is for neurotic patients. (25)

Professional nurses are aware that pre-operative preparation involves more than telling the patient about his physical preparation, and that the need for emotional support is frequently overwhelming. Fear of impending pain, of discomfort, and of the unknown rank high on the list of anxieties overtly expressed by surgical patients. There is a natural concern for his family, his job, and his financial situation. Added to these are the fears of anesthesia, the operation itself, and even death. (6)

Ideally, some member of the health team should begin to participate in the preparation of the patient from the moment of the decision to operate until the time of the actual incision. (13) Skilled and conscientious physical and psychological preparation of the surgical patient is of crucial importance if post-operative complications are to be minimized. Adequate pre-operative instruction of patients has been credited with decreasing patient anxiety, decreasing post-operative vomiting, allaying fear about post-operative pain, and increasing post-operative activity. (12) (21) (23)

According to Janis, patients who had a moderate degree of pre-operative anticipatory fear did well psychologically post-operatively,

while those with little or with much anticipatory fear were more likely to develop emotional troubles post-operatively. He also found that those patients who had a realistic expectation of the operation did well post-operatively. Those who did not have this pre-operatively, either because of poor communication or because the patient used denial to block communication, were surprised, disappointed, and aggrieved post-operatively, and were more likely to become confused, depressed, and uncooperative. Janis also alludes to the "work of worrying" in order to be better prepared for unpleasant experiences. It is important to get the person to begin thinking over the implications of the threatening situation, become affectively involved, and thus be motivated to replace his blanket immunity with reality-oriented reassurances. (23)

The best technical efforts of the surgeon may be appreciably affected for better or for worse by the general psychological state of the patient. (18) For example, there is the case of the fearful patient who presents extreme anxiety about dying on the operating table. Doctors and anesthesiologists are, for the most part, reluctant to proceed under such circumstances. (8) (19) In a list of known causes of cardiac arrest, unusual fear and apprehension are included. (30) Eckenhoff states that marked apprehension in a patient makes him a potential candidate for death in the operating room, and cites four cases in which the patient died during, or immediately after, the

operation due to marked apprehension. (14) The amount of apprehension each patient suffers is not necessarily in proportion to the kind of surgery he faces, and should be estimated as carefully as possible before surgery.

Role of the Operating Room Nurse  
in Pre-Operative Preparation

The pre-operative interview by an operating room nurse is not new to nursing. It appeared in the literature in the early 1960's. (7) Operating room nurses are an integral part of scientific advancement in the field of surgical intervention -- cardiac surgery, kidney transplants, total hip replacements. One of the ways of avoiding a depersonalization of both the patient and the nurse in these scientific advancements lies in the realm of pre-operative visits. (20)

Both the nurse on the ward and the nurse in the operating room are faced with the problem of establishing an initial rapport with the patient, and assessing his needs as related to the stress situation of surgery. The door to the operating room, an imposed aseptic barrier, is no longer a patient information barrier. Pre-operative visits to patients help make individualized care in the operating room a reality. (9)

The professional nurse in the operating room can be one clearly identified nurse on whom the patient can depend for emotional support

throughout his surgical experience. She can provide him a continuity of care that includes many of the psychological comfort measures. She has had firsthand experience with a variety of surgical procedures, and has become uniquely equipped to answer questions, and to interpret the surgeon's explanations to the patient. (4)

By reassurance, advice, and giving proper emphasis to misconceptions, the nurse may initiate acceptance of surgery by a patient who heretofore had not been able to accept the prospects of surgery and had not been able to verbalize her feelings. The information given in the pre-operative visit depends on nursing judgment about what the patient wants and needs. (8) In many hospitals the sole ambassador from the operating room is the aide or orderly who does the surgical shave. It would appear that the nursing responsibilities are being incorrectly delegated if the patients' questions are left to them to answer.

Patients seem to be relieved to know that there are nurses in the operating room. Also, a more relaxed attitude has been observed in patients who have been visited the day before surgery by a nurse from the operating room. (7) (9)

Margaret Pratt, operating room supervisor at Doctor's Hospital in Phoenix, instituted pre-operative visits and kept records of the questions patients asked of the operating room nurses. The vast majority of patients did not ask about the operation, but instead

centered their questions on the period of awareness. The question patients asked most frequently was "Will I be asleep before I leave my room?" Hardly a day passed in the operating room that the nurse did not hear at least one patient say, "But I'm not asleep yet." While the patient was reassured at once that the pre-operative injection had accomplished its only intended purpose, it would have been much better for the patient to have known the night before what to expect so that he might now enjoy the effects of the pre-operative medication. (9)

Ellison lists several responsibilities in the role of the operating room nurse, among which is that of maintaining continuity of nursing care from the pre-operative through the operative, to the patient's post-operative course. (17) It would seem that this responsibility could only be fulfilled through the practice of effective pre-operative and post-operative visits.

There are some who argue against pre-operative visits on the grounds that the operating room nurse transgresses the realm of the surgeon or of the anesthesiologist. Ingall believes that one person should be responsible for giving all the necessary information to those destined to receive surgery. He states,

It would seem to me that it is the duty of the surgeon and his alone, or those to whom, on occasion, he has to delegate this office, to warn the patient of what is to be expected.



The response to his inquiries has been overwhelmingly against the suggestion that the operating room nurse should interview the patient prior to their surgery. Some of the minority in favor of the idea were genuinely convinced that they could offer solace and psychological support to the patient. Ingall feels that if, after the surgeon has given his reassurance and explanation, the patient needs additional support, the psychiatrist is the person to provide the professional mental support. He also feels that an operating room nurse's proficiency should be confined reasonably to her chosen sphere. (22)

#### Related Nursing Studies

Dumas and Leonard studied 51 gynecological patients who had general anesthesia to determine if a special nursing process applied pre-operatively would aid the patient to approach surgery with a minimum of distress and have a lower incidence of post-operative vomiting. Their findings reported that patients whose emotional distresses were not relieved pre-operatively had a higher incidence of vomiting than those whose distresses were relieved. It would seem to indicate that the nurse does have an important role in the psychological care of the pre-operative patient. (12)

In an on-the-job practical research study reported by Healy, it was shown that an experimental group of patients who had been given complete pre-operative instruction required less narcotics and were

able to be discharged sooner than the control group which had the usual pre-operative care. Also, there were fewer post-operative complications in the experimental group. This project, involving 321 patients, was carried out over a four-month period. (21)

The hypothesis that the patient who was informed about the experience he was to undergo in the hospital and was encouraged to communicate his concerns would make a faster and more comfortable recovery was tested by Johnson. Thirty-eight women were randomly assigned to two groups and all were to undergo elective abdominal surgery. The experimental group was visited three times -- on the evening prior to surgery, on the evening of the day of surgery, and on the evening of the first post-operative day. The investigator did not visit the control group at all. The criterion used to measure the effect of the nurse-patient interaction was the length of the post-operative stay. There was a significant difference between the two groups with the experimental group being discharged approximately one to one and one-half days prior to the control group. (24)

In an Unpublished Masters' Thesis, Leach studied 80 adult post-operative patients who had had surgery within ten days preceding the interview, regarding their pre-operative preparation. A check list including a list of activities considered to be part of pre-operative teaching, and the person giving the instruction, in addition to two questions dealing with the worries of the patient, and an open-ended

question for comments regarding pre-operative preparation were used to collect the data. It was concluded that although the necessity for pre-operative preparation has been recognized for a long time, there is evidence that the registered nurse is overlooking the important function of pre-operative preparation. It was also found that patients knew more about the pre-operative phase of nursing care than the post-operative phase. The sex of the patient and the type of surgery did not appear to influence the amount of pre-operative instruction. (26)

In a study reported in the American Journal of Nursing, Weiler described the investigation which took one year and involved 110 open-heart surgery patients. In a questionnaire-type interview, the patients answered questions designed to elicit what they perceived as essential pre-operative information. It was found that 83 of the patients considered their pre-operative preparation adequate; however, all but 16 would have added other information to the instructions. Forty-two felt that the nurse had given the most helpful instruction, while 34 indicated the most helpful instruction came from the physician. Fifteen indicated a combination of the physician and the nurse as being the most helpful source of information. The areas of instruction most important to the patients were deep breathing, and coughing techniques; information about pain, oxygen, and chest tubes;

information about the intensive care unit; information about visiting times and communication of information to relatives. (33)

In another Unpublished Masters' Thesis, Lindenberg hypothesized that there would be no significant difference in the anxiety level and post-operative complications rate between cholecystectomy patients given a pre-operative intensive care nursing program and those given routine hospital pre-operative care. In regard to the anxiety factor, the findings indicated no significant difference. The anxiety measuring tools used on the pre- and post-operative anxiety levels of the control and experimental groups were The Mood and Feelings Inventory and The Hospital Reaction Questionnaire (Quinn, Wolfer, and Davis 1969). The post-operative complications tabulated were the number of narcotics and sedatives, episodes of vomiting, anorexia and urinary problems. The findings of a significant difference in the vomiting factor concurs with that of Dumas and Leonard. The number of narcotics administered post-operatively did not show a significant difference, but a positive clinical trend was indicated with the experimental group receiving fewer narcotics than the control group. The number of sedatives given post-operatively showed no difference between the groups and anorexia and urinary problems did not occur in either group. The lack of statistical significance must be considered in the light of the small sample of 15. (28)

Lynch, Struck, and Wermers reported in the Association of Operating Room Nurses Journal their study which tested the hypothesis that operating room personnel, other than the surgeon, present during the surgery, could alleviate the patient's anxiety to a significant degree through the establishment of rapport during pre-operative contacts. The study was conducted in a medical school-affiliated hospital with a bed capacity of over 600 from which an "operating-room nurse-visited" population of 22 women and 10 men were randomly selected from surgery patients meeting certain criteria. The operating-room nurse-visited patient was visited the day before surgery by the same nurse who would later accompany him to surgery and be there during the surgery. The visits were informal, lasted an average of 15 minutes and were designed to establish rapport between the nurse and the patient. Another 32 patients were matched by age, sex, and type of operation as closely as possible to the experimental group. An evaluation of pre-operative and post-operative anxiety was obtained by use of the Wittenborn Psychiatric Rating Scale. Their hypothesis that operating room personnel can significantly reduce anxiety through establishment of rapport prior to surgery was not supported. The pre-surgical anxiety reduction of 22.7 percent in the experimental group as opposed to 16 percent in the control group was not considered significant, but it was considered noteworthy. They also found that hysterectomy patients were 23.25 percent more

anxious than non-hysterectomy patient subjects. This group also had a higher post-operative mean anxiety than the pre-operative level. (29)

In a study of 50 pre-operative patients at Vanderbilt University Hospital, Depee found that fear of death was the type of fear expressed most often by all patients. Patients having gastric or duodenal surgery did not express any fear of pain, but this was frequently verbalized by those having heart or great vessel surgery. Depee also found that the fears of pre-operative patients appeared to become intensified as the evening progressed into the night, suggesting that pre-operative visits should be made during these hours to help patients deal with their fears. (10)

In another Unpublished Masters' Thesis, Dooley studied ten patients in an attempt to discover what happened when an operating room nurse visited each patient pre-operatively and provided relevant information about the surgical period, gave suggestions to decrease the patient's post-operative discomforts, and found out what the patient's feelings were in the hope that talking about these things would be helpful. The belief underlying the study was that professional nurses from the operating room are in an especially useful, but seldom used, capacity to help relieve some of the fears and worries experienced by the patient in the pre-operative period, a time assumed to be stressful to most patients. The investigator had

guidelines during the pre-operative interview so that certain topics common to all surgical patients would be discussed. In order to give each patient a chance to respond to possible areas of fear and worry, the investigator presented each patient with topics of conversation involving certain areas. The visit was seen as being helpful by one-half of the patients; the operating room nurse was a friendly person who gave the patients emotional support by spending time with them and offering encouragement. Although this was not exactly what the investigator had hoped for, the finding in itself was not useless. The study seems to indicate that pre-operative visits are useful. The physiological indicators (blood pressure, temperature, pulse, respiration) of the patient's well-being suggested that the investigator was more beneficial to the high-stress group of patients. However, the investigator believes it is difficult to say whether her visits were more beneficial to patients in the high, moderate, or low stress group because of the inadequacy in the definition, description, and manifestations of stress. (11)

#### Other Related Studies

In a study reported in The New England Journal of Medicine, Egbert, Battit, Welch, and Bartlett discussed "Reduction of Post-operative Pain by Encouragement and Instruction of Patients." The effect of encouragement and education on 97 surgical patients was

studied. The experimental group of patients was taught about what to expect in the post-operative period including how to relax, how to take deep breaths, and how to move so they would remain more comfortable after their operation. Comparing these patients with a control group of patients, the investigators found that they were able to reduce post-operative narcotic requirements by one-half in the experimental group. It was also found that the experimental patients could be discharged at an earlier date than the control group which received the regular pre-operative routine. (15)

In another study, Egbert et al. demonstrated that pre-operative medication alone cannot allay pre-operative apprehension. The patients who had received a pre-operative barbiturate but no pre-operative visit were drowsy but not necessarily calm upon arrival in the operating room. Those who had been informed by the anesthesiologist on his rounds the evening before of the sequence of events to occur on the operative day, but who had not received a barbiturate as pre-operative sedation were calm even though not drowsy. Those who face an anxiety-generating situation look for emotional support. An authority, supposedly able to modify the danger, becomes invested with strong emotional significance. The statements made by this authority assume greater importance than would ordinarily be expected. (16)



In a survey of male surgery cases, Janis compared pre-operative fear and post-operative adjustment in the two groups of men who had undergone major surgical operations; 51 men who reported having been informed beforehand about the specific unpleasant experience in store for them, and 26 men who reported having been completely uninformed. The two groups differed in two ways: 1) the well-informed men were more likely to report that they had felt less worried or fearful before the operation, and 2) the well-informed men were less likely to report that they had become angry or emotionally upset during the post-operative period of convalescence. This was based on retrospective reports and cannot be accepted as conclusive evidence, but it does support Janis' hypothesis that: if no authoritative warning communications are given and if other circumstances are such that fear is not aroused beforehand, the normal person will lack the motivation to build up effective inner preparations before the onset of the danger, and he will thus have relatively low tolerance for stress when the crisis is actually at hand. (23)

According to Levine and Fieldler, the post-operative course and rehabilitation progress of the surgery patient was often directly related to the type and amount of pre-operative preparation he received. They established a special pre-operative program to lessen the fears of the patient and his family, to help him understand and accept the procedures, and to improve his cooperation with the nurses. (27)

In a study of 28 surgical patients, Adams and Gill found three main factors that could be correlated with post-operative psychologic course: expectation of surgery, level of pre-operative anxiety, and use of denial. They found that patients with a realistic expectation of surgery or low levels of anxiety did better psychologically than those who had unrealistic expectations or a high level of anxiety or made important use of denial. (1)

These and other observations clearly indicate the need for psychological preparation in addition to the routine physical preparation of patients for surgery. They imply that not only the incidence of post-operative complications may be minimized, but that chances for a full recovery might be enhanced by adequate psychological preparation.

## CHAPTER III

### REPORT OF STUDY

#### Description of Sample

The subjects in this study were patients in a private 450-bed private hospital who underwent major gynecological surgery performed by any one of seven gynecologists. They were randomly assigned to either an experimental or a control group as their names appeared on the surgery schedule. The total number of the sample was 30, with 15 being in the experimental group and 15 in the control group.

The ages of the control group ranged from 21 years to 67 years with the mean age being 38.7 years. The mean age in the experimental group was 42.2 years, with ages ranging from 28 years to 58 years. In the control group, the largest percentage fell into the 30-39 year-old category (46.7 percent), while in the experimental group, the largest percentage was in the 40-49 year-old category (40 percent). See Table 1.

Table 1. Ages of Women, Experimental and Control Groups.

Age.	Control Group		Experimental Group	
	N	%	N	%
20-29	3	20.0	2	13.3
30-39	7	46.7	4	26.7
40-49	2	13.3	6	40.0
50-59	2	13.3	3	20.0
60-69	1	6.7	0	0.0
Total	15	100.0	15	100.0
Mean		38.7 years		42.2 years

In both the control group and the experimental group, the largest percentage of the subjects were married, with 73.3 percent in the control group and 100 percent in the experimental. See Table 2.

Table 2. Marital Status of Women, Experimental and Control Groups.

Marital Status	Control Group		Experimental Group	
	N	%	N	%
Single	0	0.0	0	0.0
Married	11	73.3	15	100.0
Separated/ Divorced	4	26.7	0	0.0
Widowed	0	0.0	0	0.0
Total	15	100.0	15	100.0

In the control group, the number of women in the Protestant and Catholic religion category were almost equal (Protestant 40 percent; Catholic 46.6 percent), while in the experimental group there were

almost twice as many Protestants as Catholics (Protestant 60 percent; Catholic 33.3 percent). There was none of the Jewish faith, one in the "other" category in the control group, and one in each of the groups in the "no religion" category. See Table 3.

Table 3. Religion of Women, Experimental and Control Groups.

Religion	Control Group		Experimental Group	
	N	%	N	%
Protestant	6	40.0	9	60.0
Catholic	7	46.6	5	33.3
Jewish	0	0.0	0	0.0
Other	1	6.7	0	0.0
No Religion	1	6.7	1	6.7
Total	15	100.0	15	100.0

According to ethnic grouping, both the control and the experimental groups were composed of 93.3 percent from the white race. There was one Negro in the control group (6.7 percent) and one in the "other" category in the experimental group (6.7 percent) who was of Indonesian origin. See Table 4.

The occupation of the majority of the sample was in the housewife category in both the control group (66.7 percent) and the experimental group (80 percent). The "other" category included such occupations as teacher, restaurant manager, secretary, statistical clerk, and bookkeeper. See Table 5.

Table 4. Ethnic Group of Women, Experimental and Control Groups.

Ethnic Group	Control Group		Experimental Group	
	N	%	N	%
White	14	93.3	14	93.3
Negro	1	6.7	0	0.0
Other	0	0.0	1	6.7
Total	15	100.0	15	100.0

Table 5. Occupation of Women, Experimental and Control Groups.

Occupation	Control Group		Experimental Group	
	N	%	N	%
Housewife	10	66.7	12	80.0
Other	5	33.3	3	20.0
Total	15	100.0	15	100.0

According to the number of children of these women, 60 percent of the control group had from 0-3 children, while 73.3 percent of the experimental group came within this category. Twice as many in the control group (40 percent) than in the experimental group (20 percent) had between 4-7 children. The mean for the control group was 2.7 children while in the experimental group, the mean was 3.3 children. See Table 6.

Table 6. Number of Children, Experimental and Control Groups.

No. of Children	Control Group		Experimental Group	
	N	%	N	%
0-3	9	60.0	11	73.3
4-7	6	40.0	3	20.0
8-11	0	0.0	1	6.7
Total	15	100.0	15	100.0
Mean	2.7 Children		3.3 Children	

All of the subjects in the control group (100 percent) were born in the U. S. , but 86.7 percent of the experimental group were born in U. S. territory. One subject had been born in Indonesia, another in Latvia. See Table 7.

Table 7. Birthplace of Women, Experimental and Control Groups.

Birthplace	Control Group		Experimental Group	
	N	%	N	%
U. S.	15	100.0	13	86.7
Europe	0	0.0	0	0.0
Other	0	0.0	2	13.3
Total	15	100.0	15	100.0

According to diagnosis, the largest percentage in both the control (46.6 percent) and the experimental group (33.4 percent) fell within the category of procidentia, with or without cystocele and rectocele. In the control group, the next largest percentage was the

"other" category (26.7 percent) and represented one diagnosis of menometrorrhagia, one of cysto-urethrocele, and two of blocked fallopian tubes. In the experimental group, the next largest percentage was tied between the malignancy category (20 percent) which included cancer insitu of the endometrium, endometrial adenocarcinoma, and class IV Pap smear, and the category of adenomyosis (20 percent). These same two categories, which were the middle-ranking ones in the experimental group, turned out to be the lowest-ranking in the control group. The malignancy category at 6.7 percent represented one diagnosis of cancer insitu of the cervix, with no one in the adenomyosis category.

The middle-ranking categories in the control group, uterine fibroids (20 percent) and the "other" category as described above (26.7 percent), were the lowest ones in the experimental group. The uterine fibroid category was composed of 13.3 percent as was the "other" category (13.3 percent) which represented chronic pelvic pain and intractable menorrhagia. See Table 8.

The largest percentage in the control group, (53.3 percent), underwent vaginal hysterectomy, with or without cystocele and rectocele repair. An identical percentage (53.3 percent) of the experimental group had abdominal hysterectomy performed. About twice as many in the control group had vaginal hysterectomies (53.3 percent) than abdominal hysterectomies (26.7 percent), whereas the



percentages were closer in the experimental group with vaginal at 40 percent and abdominal at 53.3 percent. Twenty percent of the control group underwent other types of gynecological surgery as Rock Mulligan Hoods, salpingo-oophorectomy, and Marshall Marchetti, while 6.7 percent of the experimental group fell within this category. See Table 9.

Table 8. Pre-Operative Diagnosis of Women, Experimental and Control Groups.

Diagnosis	Control Group		Experimental Group	
	N	%	N	%
Procidentia	7	46.6	5	33.4
Uterine Fibroids	3	20.0	2	13.3
Malignancy	1	6.7	3	20.0
Adenomyosis	0	0.0	3	20.0
Other	4	26.7	2	13.3
Total	15	100.0	15	100.0

Table 9. Type of Surgery, Experimental and Control Groups.

Present Surgery	Control Group		Experimental Group	
	N	%	N	%
Vaginal Hysterectomy	8	53.3	6	40.0
Abdominal Hysterectomy	4	26.7	8	53.3
Other	3	20.0	1	6.7
Total	15	100.0	15	100.0

In the control group, 46.7 percent had had previous surgery, while 80 percent of the experimental group had undergone surgery before this hospitalization. The number that had undergone previous surgery in the experimental group was four times the number that had never had previous surgery, while in the control group it was almost evenly divided. See Table 10.

Table 10. Previous Surgery Experience of Women, Experimental and Control Groups.

Previous Surgery	Control Group		Experimental Group	
	N	%	N	%
Yes	7	46.7	12	80.0
No	8	53.3	3	20.0
Total	15	100.0	15	100.0

In both the control and experimental groups, the same gynecologist had performed the greatest percentage of the surgery (33.3 percent). The gynecologist who performed the next largest percentage of the surgery in the experimental group (20 percent) had no patients in the control group. See Table 11.

Table 11. Gynecologist who Performed Surgery, Experimental and Control Groups.

Gynecologist	Control Group		Experimental Group	
	N	%	N	%
A	5	33.3	5	33.3
B	2	13.3	1	6.7
C	1	6.7	1	6.7
D	1	6.7	2	13.3
E	2	13.3	1	6.7
F	0	0.0	3	20.0
G	4	26.7	2	13.3
Total	15	100.0	15	100.0

#### Statistical Analysis of Data

The Spielberger State-Trait Anxiety Inventory was the tool used to ascertain the anxiety level of these patients and was given pre-operatively and again three or four days post-operatively to both the experimental group (N=15) and the control group (N=15).

The t-ratio was the statistical test used to test the chance probability of a difference between the means of the two small samples in this study. The raw scores on the Spielberger STAI for both experimental and control groups are given in Appendix C.

The t-ratio was computed on the difference scores between the early pre-operative and late pre-operative periods in both the experimental and control groups. This computation was made on the State-Anxiety portion of the Spielberger STAI. The computed value for the

t-ratio was 1.6 while the table values at Alpha .05 was 2.04 on the two-tailed test and 1.70 on the one-tailed test. The degrees of freedom were 28. Since the computed value at Alpha .05 did not exceed the table value, the null hypothesis that there will be no significant difference in the anxiety level of patients undergoing major gynecological surgery who have been visited pre-operatively by an operating room nurse, and those patients who have not been visited pre-operatively by an operating room nurse was accepted.

Perhaps with a larger sample, the difference would have reached significance. Looking at the means for both the experimental and control groups on the State-Anxiety portion of the Spielberger STAI, an indication for a greater increase in the mean anxiety score for the experimental group, which were ORN-visited, is more evident than in the control group. The mean anxiety score for the control group in the early pre-operative period was 40.8 and had slightly increased to 41.4 in the later post-operative period. Although the experimental group had a lower early pre-operative mean anxiety level of 38.5, its increase in the later post-operative period to 44.1 was considered noteworthy. This suggests that the pre-operative visit by an operating room nurse did, in fact, cause a slight increase in the anxiety level of these women in the experimental group. See Table 12.

Table 12. Mean State and Trait Anxiety Scores on Spielberger STAI  
Experimental and Control Groups.

	N=15 Experimental Group		N=15 Control Group	
	STATE	TRAIT	STATE	TRAIT
Early Pre-Operative Mean	38.5	37.7	40.8	36.3
Late Pre-Operative Mean	44.1	36.5	41.4	36.9

The Trait-Anxiety portion of the Spielberger STAI serves as an indication of a personality trait and shows individual differences in anxiety proneness. Table 12 indicates very little difference between the experimental group and control group on their Mean Trait Score in the early pre-operative period and the late pre-operative period. Therefore, it appeared that both the experimental and control groups were quite similar in their Trait-Anxiety, with neither group demonstrating more anxiety-proneness than the other.

#### Pre-Operative Interview Guide

In analyzing the information obtained in the pre-operative interview guide, (Appendix A), it was found that the highest percentage of patient-initiated conversations in the pre-operative period (60 percent) were related to the patient's feelings about what would be happening to her during that period. The categories are listed here as they appeared on the interview guide. See Table 13.

Table 13. Tabulation of Conversations Pertaining to Pre-Operative Phase.

Conversation	Nurse-Initiated		Patient-Initiated	
	N	%	N	%
Enema	10	66.7	5	33.3
NPO after midnight	15	100.0	0	0.0
Surgical shave	12	80.0	3	20.0
Removal of dentures, jewelry	15	100.0	0	0.0
O. R. attire	14	93.3	1	6.7
Voiding/foley catheter	13	86.7	2	13.3
Pre-op medication	10	66.7	5	33.3
Trip to O. R.	15	100.0	0	0.0
Feelings about events	6	40.0	9	60.0

Most of the women had said that they were very glad that the nurse from the operating room had explained what would be happening to them during the time before surgery. They said it made the experiences less frightening as they would know what to expect. Some said they would feel better-prepared and less apprehensive during this period before surgery because they would be more familiar with hospital routines. Those who had experienced surgery at some previous time mentioned in the conversation that they were not completely unfamiliar with all the procedures and surroundings of the hospital, but that it was very helpful to have someone talk with them about it. In contrast, one woman who had not had any previous surgery said

she did not know enough about the experience of surgery to even guess as to what questions to ask.

The concerns expressed by these women when discussing the operative phase of their hospitalization seemed to revolve mainly about learning of the need for surgery, what they had been told about their surgery by the doctor, and how they felt about having the surgery. Conversations regarding the need for surgery were initiated by the patients in 80 percent of the interviews. As to what their doctor had told them about their forthcoming surgery and the patients' feelings about having the surgery, the conversations were patient-initiated in 86.7 percent of the interviews in both categories. The next highest percentage, which was about one-half that of the greatest concerns, was that of anesthesia (46.7 percent). The remainder of the patient-initiated conversations represented rather low percentages. The categories are listed here as they appeared on the interview guide. See Table 14.

From the anecdotal reconstruction of the interaction regarding when the patient first found out about the need for surgery, (80.0 percent) the time involved ranged anywhere from four years to one week prior to the scheduled surgery. One woman had had chronic pelvic pain for a period of four years. Another had been under a physician's care for four years for menstrual problems and knew that surgery would be necessary someday. The doctor was going to perform a

hysterectomy with the last Cesarean section of one woman, but her condition would not tolerate it at the time. Stress incontinence and bladder infection had caused another woman trouble for quite some time; two others had found that cramps and heavy menstrual flow could no longer be controlled with medication. Another had had three D&C's (Dililation and Curretage) in the past six months, but when bleeding problems were not controlled, a hysterectomy was indicated. One woman had had a class IV Pap smear and had been scheduled for surgery two weeks later. Another had had a diagnostic D&C one week before being scheduled for a hysterectomy.

Table 14. Tabulation of Conversations Pertaining to Operative Phase.

Conversation	Nurse-Initiated		Patient-Initiated	
	N	%	N	%
Informed of need for surgery	3	20.0	12	80.0
What Doctor told patient	2	13.3	13	86.7
Feelings about surgery	2	13.3	13	86.7
Nurse to greet patient	15	100.0	0	0.0
Twilight zone (holding room)	13	86.7	2	13.3
I. V. infusion	14	93.3	1	6.7
O. R. table & equipment	15	100.0	0	0.0
Blood pressure cuff	15	100.0	0	0.0
Environment	13	86.7	2	13.3
Anesthesia	8	53.3	7	46.7
Surgery itself	12	80.0	3	20.0



The conversations which the patients initiated regarding what the doctor had told them about their surgery (86.7 percent) concerned mainly what he was going to do in the surgical procedure and what approach would be used to do the surgery -- abdominal or vaginal. One doctor indicated that he would be removing the fallopian tubes and ovaries; two others said they would not remove tubes and ovaries unless indicated. Two women were informed that bladder symptoms would also be taken care of. Another was told by her doctor that a biopsy would be taken and examined while she was in surgery, and that probably a hysterectomy would be necessary. Two of the women, however, apparently had not been told very much about their surgery; one said she assumed she'd have an incision when the prep girl came to shave her abdomen, but the other had no idea as to the approach and hoped to see the doctor before the surgery. She thought the abdominal approach was obsolete and that most hysterectomies were performed vaginally.

The majority of the patient-initiated conversations regarding their feelings about having the surgery (86.7 percent) revealed that they were not worried about the surgery and would be glad to have their problem taken care of, especially those women who had known about the necessity of having surgery for some time. One was anxious to have surgery so that she would not have menstrual periods anymore. Another felt she needed surgery after having had 11 children and

would be glad to be relieved of the annoying symptoms of a cystocele. Another said she had had the two children she had wanted and was not concerned about having a hysterectomy, although she was surprised to be scheduled for surgery so soon. One said she was not worried because the doctor had been doing surgery for a long time and knew what he was doing; another seemed concerned over why she was having a hysterectomy. One woman hoped she would be able to see the doctor before surgery because she wanted to ask him if he planned to remove the uterus abdominally or vaginally. One of the subjects stated that she hoped the doctor would also remove her ovaries because she had had cysts on them before and did not want to have surgery again at a later date. The main concern of another was whether or not the hormones she would be taking post-operatively would cause a weight gain. Another expressed relief that the Pap smear had shown up a malignancy early enough so she could have treatment. Another expressed concern over having the surgery because she knew she had a malignancy.

In regard to the category on anesthesia and how the patient felt about it, the patients initiated the conversations in 46.7 percent of the interviews, far greater than the percentages in many of the other categories but only one-half as much as the percentage in the categories of the need for surgery, what the doctor had told them about the surgery, and the patient's feelings about having the surgery. Most of the conversations dealt with the patient not wanting a spinal anesthetic, either

because of problems following previous spinals, or because of back problems, or because they had heard "things" about spinals. Most of them expressed the desire to be asleep during the surgery. One woman asked about having pentothal which she'd had for a previous surgery. Another wondered how long it would take for the pentothal to put her to sleep. One expressed concern as to why her anesthesiologist was not coming to visit her until in the morning; her roommates had already been visited by their anesthesiologist and they were scheduled for surgery at the same hour.

In the immediate post-operative period, the greater percentage of all the conversations were nurse-initiated. The patient's concerns during this time seemed to revolve around the period of time spent in the PAR (post-anesthesia room). Even though the percentage for patient-initiated conversations were low in all the categories, it was 26.7 percent for the category "time in PAR", twice the percentage for most of the other categories. The categories are listed here as they appeared in the interview guide. See Table 15.

Most of the women wanted to know how long they would be in the PAR, so they could tell their husbands when to expect them back in their room. One woman asked if her husband could be with her in PAR. Another said that she thought she would be in PAR all day.

Table 15. Tabulation of Conversations Pertaining to Immediate Post-Operative Phase.

Conversation	Nurse-Initiated		Patient-Initiated	
	N	%	N	%
Where patient will awaken	13	86.7	2	13.3
Who will be present	13	86.7	2	13.3
Dressings, tubes, etc.	14	93.3	1	6.7
Time in PAR	11	73.3	4	26.7
Pain medication	13	86.7	2	13.3
Feelings about PAR	13	86.7	2	13.3
Food and liquids	13	86.7	2	13.3
Coughing/deep breathing	15	100.0	0	0.0
Vital signs	15	100.0	0	0.0

In the later post-operative period, the patients' concerns as to their limitations after surgery seemed to be uppermost in their minds. Almost three-fourths of the conversations in this category were patient-initiated (73.3 percent). Slightly over one-half (60 percent) of the conversations regarding the patients' feelings about their surgery in relation to their family, friends, and work were initiated by the patient. The categories are listed here as they appeared on the interview guide. See Table 16.

Table 16. Tabulation of Conversations Pertaining to Later Post-Operative Phase.

Conversation	Nurse-Initiated		Patient-Initiated	
	N	%	N	%
Coughing/deep breathing	12	80.0	3	20.0
Sitting/dangling	13	86.7	2	13.3
Ambulation	9	60.0	6	40.0
Pain medication	13	86.7	2	13.3
Feelings about family, friends and work	6	40.0	9	60.0
Limitations	4	26.7	11	73.3

Regarding the above limitations following surgery, most of the women said their doctor had warned them about lifting heavy objects and about stair-climbing for a period of a few weeks following surgery. Most of them knew they would have to limit their activities for awhile and some were looking forward to having the rest of the family wait on them. Some said their families were good about helping them now and realized they would have to take things easy for several weeks after they came home. One said her mother-in-law would care for the children for three weeks as she thought she would be tempted to lift them if they were at home. Another revealed that she was already limited in activities because of a back problem and was not able to do heavy lifting. Only one said she thought she would be able to do most anything when she came home from the hospital.

In analyzing the patients' feelings about the surgery in relation to their family, friends, and work, most of them revealed that they would be glad to have the surgery behind them, and that they could expect help and understanding from the rest of the family. In two instances, the husband had insisted that the wife have the surgery performed because of the discomforts she had been experiencing. One woman was worried about how her surgery would affect her husband because he had had a heart attack one month previously. One woman had volunteered the information that only her family knew about her having surgery -- she did not want her friends to know because she did not want them to see her in "such a condition." None of the women who were employed outside the home mentioned how they viewed their surgery in relation to their work.

In analyzing the anecdotal reconstruction of the interactions which occurred following nurse-initiated conversations, it is interesting to note how these differed from those that were patient-initiated.

Pertaining to the pre-operative phase of their hospitalization, the nurse-initiated conversations revealed that some of the patients were not aware that their food and liquids would be discontinued at midnight. Some were concerned that they were unable to remove their wedding rings and expressed relief when they learned they could be taped in place instead. Most of the women had not had indwelling foley catheters before and were concerned if they would be able to

void when it was removed. Some asked how long they would have to have this catheter and how it would remain in place. Those who had had previous surgery and had had difficulty in voiding after surgery seemed relieved to learn they would not have to worry about that problem this time because of the foley catheter.

In the operative phase of the interview, the nurse-initiated conversations which stimulated responses seemed to revolve around the intravenous infusion -- how long it would be necessary and if they could also eat while receiving it. When the operating room table and the utilization of leg stirrups for vaginal procedures was mentioned, most of the women said they were familiar with these stirrups from childbirth. When informed of the twilight zone (holding room), most of the women thought it was an excellent idea to have a quiet place to wait until the surgical suite was prepared for them. The interactions regarding anesthesia which resulted from nurse-initiated conversations, revealed much of the same information as from those that were patient-initiated. The majority of the women stated they definitely did not want a spinal anesthetic, either because of some previous untoward experience with a spinal they had had or that a friend had had, or because of some back trouble.

In discussing the immediate post-operative period of their hospitalization, the nurse-initiated conversations revealed that the majority of the women were quite surprised to learn that they would

be wearing a peri-pad and would be having some vaginal drainage. Some expressed relief to learn that a nurse would be with them or close by when they awoke. Others expressed surprise that they would be able to have medication for pain even in the PAR. Most of the women said they were glad to be warned of other people being present in the PAR. Many seemed amused to learn that men and women were not kept separate in this area -- they had thought that the PAR was more of a private place but felt that they probably would not care about other people at that time. A similarity with that of the patient-initiated conversations concerned the time in PAR, and if their husbands could visit them there or just how soon they could see their husbands.

The most outstanding item in the later post-operative phase seemed to be that of early ambulation and its importance. The patients' response to the nurse-initiated conversations regarding this revealed surprise on the part of the patient that they would be getting up and moving about so soon. Some expressed concern as to how they would feel and if they would be able to ambulate so early.

The amount of time spent with the patients in the pre-operative interview ranged from 15 minutes to 45 minutes, with a mean of 25 minutes. There did not appear to be any relationship between the difference in the anxiety level of the patient and the time spent with the patient. See Table 17.



Table 17. Comparison of Time Spent with Patient and Difference in Anxiety Level.

Subject	Time Spent in Minutes	STATE Score Difference
E-1	25	7
E-2	20	2
E-3	25	14
E-4	35	35
E-5	20	1
E-6	20	10
E-7	25	8
E-8	20	15
E-9	25	1
E-10	15	-8
E-11	20	4
E-12	20	-1
E-13	15	12
E-14	45	-18
E-15	45	2
Mean	25 Minutes	

#### Evaluation of ORN Pre-Operative Visit

As an evaluation of the ORN pre-operative visit, the subjects in both the experimental and control groups were asked three questions by the nurse-investigator during her post-operative visit. See Appendix A. Although the women in the control group were not visited

by a nurse from the operating room on the evening prior to their surgery, they were also asked the questions. This was done as a double-check to determine if the patients were actually able to distinguish an operating room nurse from a ward nurse or patient aide.

In the experimental group, all 15 women (100 percent) answered that they had been visited by an operating room nurse the evening before their surgery. In the control group, eight (53.3 percent) responded that they remembered being visited by a nurse from the operating room on the evening prior to their surgery. One-half of these mentioned specifically the "nurse" who had shaved them. Four of the control group (26.7 percent) answered "no" to the question while three (20 percent) said they couldn't remember whether an operating room nurse had come to see them before surgery or not. See Table 18.

Table 18. Response to Question #1: "Were You Visited by a Nurse From the Operating Room the Evening Before Your Surgery?"

Response	Experimental Group		Control Group	
	N	%	N	%
Yes	15	100	8	53.3
No	0	0	4	26.7
Don't Remember	0	0	3	20.0
Total	15	100	15	100.0

In response to the second question as to whether or not they found her visit helpful, 13 (86.7 percent) of the experimental group said they did. Two (13.3 percent) said they did not. In the control group, six (75 percent) of the eight that answered "yes" to the first question indicated that they found the ORN visit beneficial. Two (25 percent) stated that they did not think the visit helpful. See Table 19.

Table 19. Response to Question #2: "If Yes, Do You Feel Her Visit Helped You in Any Way?"

Response	Experimental Group		Control Group	
	N	%	N	%
Yes	13	86.7	6	75
No	2	13.3	2	25
Total	15	100.0	8*	100

\* Only eight in the Control Group had responded "yes" to question #1.

Reasons given as to how these 13 women in the experimental group felt the pre-operative visit by an operating room nurse helped them included such items as 1) gave excellent preparation for surgery in a step-by-step manner, 2) provided information, 3) answered questions, 4) provided a reassuring, calming, stabilizing effect, 5) relieved tension and apprehension, 6) gave an understanding of the unknown, 7) was especially beneficial for someone undergoing surgery for the first time. The exact responses follow:

Excellent preparation -- better than I had when I had surgery six years ago.

She told me everything that was going to happen step-by-step. It's a good idea and it really helps. Of course, the "nurse" that did the surgical shave and the anesthesiologist also told me things.

She spent a lot of time telling me what I could expect about surgery -- it really did help because I'd only had a T & A before. She was very sweet also. I was able to ask lots of questions.

She answered a lot of questions I had about surgery, never having had surgery before. It's hard to ask the doctor questions -- he's so busy -- and the anesthesiologist never did come around. It was nice just talking to someone.

It was very reassuring and removed any tenseness I might have had. Even though I didn't have many questions, she gave answers to questions I may have had if I'd known enough to ask them. It was great being prepared.

It helped me to understand so many things I didn't know about. I'd had a D&C before but never any surgery where I was cut -- so I didn't know a lot of what to expect. But she told me. I was very impressed.

She was the one calming thing of this whole experience. She was so wonderful. I didn't have my own family doctor to reassure me and so she was a great stabilizer for me. She could tell me just what to expect because she worked in surgery and made it more meaningful.

She told me step-by-step what was going to occur. Never having had surgery before, it helped relieve any tensions I might have had. It was great having her visit. She even told me about IV's and the size of the operating room.

She was very happy and pleasant and we had a good time. I think it would've really helped someone who's going to surgery for the first time -- but I've been before and so I kind of knew what to expect.

Because it made me feel reassured that someone cared enough about me to do something like that. It would really be helpful for someone who's never had surgery before.

She was very thorough and talked to me like I was a personal friend. She was very helpful in answering all my questions.

We talked a great deal -- there was a question of my having a malignancy and talking to the nurse helped me to be less apprehensive. Also, her father is a doctor in the area I'm from and so we talked about that.

Never having been through such an experience as this before, I thought her visit was very helpful. She went through everything step-by-step, told me what to expect, and told me who'd be there. She was especially good in her job and very pleasant, too. I didn't realize the hospital did such things.

The two women in the experimental group who stated that they did not find the pre-operative visit by an operating room nurse as being helpful gave the following reasons:

I'm a nurse and so I knew what to expect. But, I do think it's a good idea.

Her visit really upset me. My friends had told me just what to expect and then she told me differently. I was really confused.

In the control group, the six women that responded "yes" to the first question, indicating that they found an ORN visit beneficial, gave such reasons as:

She did a good job of telling me what to expect. I'd never had surgery before and so it was very helpful.

She gave me assurance.

She told me about the twilight zone and just helped to put my mind at ease.

She was very sweet and nice. Her visit really helped a lot since it'd been several years since I'd had my appendectomy.

She talked to me about my surgery and what I could expect. She mentioned the twilight zone.

I guess her visit helped me -- I really don't remember. She did tell me about what room I'd be going to when and on what floor.

The two (25 percent) that did not think the visit was helpful stated such reasons as:

She shaved me, but my doctor had already answered any questions I'd had.

Well, she was very gentle in the way she shaved me. I had no worries about surgery itself because I knew I had a good doctor and was in a good hospital and would get good care.

Regarding question #1, the four (26.7 percent) that answered "no" and the three (20 percent) that "didn't remember" an operating room nurse visit all said they would not like to have had a nurse from the operating room come to see them that evening before surgery. See Table 20.

Table 20. Response to Question #3: "If No, Would You Have Liked a Nurse From the Operating Room Come to See You That Evening Before Surgery?"

Response	Control Group	
	N	%
Yes	0	0
No	7	100
Total	7*	100

\* Only seven in the Control Group had responded "no" or "don't know" to question #1.

Reasons given by the seven in the control group who stated that they would not have liked an ORN visit that evening prior to surgery were as follows:

Don't think it would've made any difference -- I didn't want to know all the gory details.

I don't think it would've made any difference. My anesthesiologist answered my questions.

I wasn't nervous at all. I'd been in surgery when my sons had their tonsils removed and so I knew all about the operating room.

I'm a nurse and I don't think she could've told me anything I didn't already know.

My doctor prepared me quite well for surgery, and I don't think there was anything a nurse could've done for me.

Don't think it would've made any difference. I've been to surgery before.

#### Relation to Other Studies

This study concurs with the findings by Lindenberg in her Unpublished Masters' Thesis in which she also found that there was no significant difference in the anxiety factor of cholecystectomy patients given an intensive pre-operative care program and those given routine hospital pre-operative care. She also tabulated post-operative complications and the only significant difference was found in the vomiting factor which concurred with the findings of Dumas and Leonard.

In the study by Lynch, Struck, and Wermers, it was found that the anxiety level of patients visited pre-operatively by an operating room nurse was not significantly reduced through the establishment of rapport as they had hypothesized. The pre-surgical anxiety reduction of 22.7 percent in the experimental group as compared to 16 percent in the control group was not considered significant, but it was considered noteworthy. This differed from the study reported here in that the mean anxiety level of the gynecological patients in the experimental group indicated a trend towards an increase in the anxiety level, and not a decrease as reported by Lynch, Struck, and Wermers in their study.

This study supports Janis' theory that patients who do poorly psychologically during their surgical course are, by and large, patients who have not been adequately prepared for the ordeal. Janis alludes to the "work of worrying" in order to be better prepared for unpleasant experiences -- stimulate the person to begin thinking over the implications of the threatening situation, become affectively involved, and be motivated to replace the blanket immunity with reality-oriented reassurances. According to Janis, patients with a moderate degree of pre-operative anticipatory fear did well psychologically post-operatively, while those with little or too much anticipatory fear were more likely to develop troubles post-operatively.



In her Unpublished Masters' Thesis, Dooley found that a pre-operative visit by an operating room nurse was seen as beneficial by only one-half of the patients. In her visit, she tried to provide relevant information about the surgical period, give suggestions to decrease the patient's post-operative discomforts, and to talk about the patient's feelings. Although the effects of her ORN pre-operative visits were not as great as she had hoped for, they were considered noteworthy and indicated that pre-operative visits by the operating room nurse were useful. This study concurs with Dooley in that the pre-operative visits were seen as being beneficial by the patients, by well over three-fourths of the women in the experimental group.

## CHAPTER IV

### SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

#### Summary

Surgical intervention is a very real and threatening thing for patients and carries with it many fears. The literature has demonstrated that patients in a pre-operative period who are psychologically prepared for their entire surgical experience will tolerate the ordeal better than a similar group who have not had the benefit of such preparation.

The purpose of this study was to determine if the operating room nurse could help the patient undergoing major gynecological surgery deal with her anxieties and cope with the stress of the situation to a significant degree through the establishment of rapport during a pre-operative visit the evening prior to surgery.

The null hypothesis was that there would be no significant difference in the anxiety level of patients undergoing major gynecological surgery who have been visited pre-operatively by an operating room nurse, and those patients who have not been visited pre-operatively by an operating room nurse.

Thirty patients meeting the criteria were randomly assigned to either an experimental or control group. The 15 assigned to the

experimental group were exposed to the independent variable of an ORN visit, in addition to routine hospital pre-operative care, on the evening prior to surgery. The control group received only the routine pre-operative care by the ward personnel. The dependent variable of anxiety was measured by the use of the Spielberger STAI and was given pre-operatively and before the ORN visit in the experimental group. It was again given the third or fourth post-operative day, but the subjects were asked to relate their responses as to how they felt early in the morning of the day of surgery.

According to statistical analysis of the data from the Spielberger State-Trait Anxiety Inventory, the null hypothesis that there would be no significant difference in the anxiety level of patients undergoing major gynecological surgery who had been visited pre-operatively by an operating room nurse and those patients who had not been visited pre-operatively by an operating room nurse was accepted.

Although the null hypothesis of this study was accepted, it was demonstrated that a pre-operative visit by an operating room nurse did slightly increase the mean anxiety level of patients about to undergo major gynecological surgery.

From the analysis of the data in the pre-operative interview guide, it appeared that the patients' main concern during the operative phase was that of learning of the need for surgery, what their doctor had told them about their surgery, and the patient's feelings about

having the surgery. This conclusion resulted from a tabulation of patient-initiated conversations. In the pre-operative phase, the patient-initiated conversations revolved around their feelings about what would be happening during this period, while in the immediate post-operative period their concerns seemed to lie in the category of the time spent in PAR. The patient's feelings towards the surgery in relation to her family, friends, and work, as well as their limitations after surgery, revealed themselves to be uppermost in the minds of the patients when discussing the later post-operative period.

From the anecdotal reconstruction of the interactions when the conversations were initiated by the nurse, it appeared obvious that the patients had little, if any, idea about many of the events they would be experiencing. This included the discontinuation of food and liquids after midnight, the use of a foley catheter, waiting in a quiet holding area until the surgical suite was prepared, intravenous therapy, drainage and dressings post-operatively, non-segregation as to sex in the PAR, and early ambulation.

It appeared that the women needed to receive this information pre-operatively, and that it was the nurse's responsibility to give it to them. Most of the women, especially those not having had previous surgery, did not know enough about the experience of surgery to be able to ask questions. However, once the nurse initiated the

conversation, the patients were soon actively involved in the conversation and asked many questions and made many comments.

To evaluate the effectiveness of the ORN visit pre-operatively, the women in both the control and experimental group were asked three questions by the nurse-investigator. All 15 of the women in the experimental group remembered that they had been visited by a nurse from the operating room the evening before their surgery. Thirteen (86.7 percent) of these said the visit was helpful to them. Of the women in the control group, over one-half (53.3 percent) responded that they remembered being visited by an operating room nurse on the evening prior to their surgery, when actually they were not. Of the eight in the control group who remembered an operating room nurse visiting them, six (75 percent) indicated they found her visit beneficial.

From the above, we can conclude that a pre-operative visit by an operating room nurse was beneficial. The interesting finding is that the patients cannot always actually differentiate professional nurses from the non-professional personnel. Consequently, they might be given information by these individuals who have had no preparation or have no authority to do so, which magnifies the already-present misconceptions of the patients.

### Findings

The findings in this study were as follows:

1. there was no significant difference in the anxiety level of gynecological patients visited pre-operatively by an operating room nurse and those who were not.
2. the mean anxiety scores on the State Anxiety section of the Spielberger STAI did indicate a slight trend towards increasing the anxiety level of those gynecological patients who were exposed to an operating room nurse visit pre-operatively.
3. the mean anxiety scores on the Trait Anxiety section of the Spielberger STAI showed very little difference between the early pre-operative and late pre-operative periods in both the experimental and control groups, indicating that neither group demonstrated more anxiety-proneness than the other, for these two time periods.
4. the gynecological patients' main concern during the pre-operative phase of their hospitalization revolved around their feelings about what would be happening to them during this period.
5. the gynecological patients' main concern during the operative phase of their hospitalization revolved around their learning of the need for surgery, what the doctor had told them about their surgery, and the patient's feelings about having surgery.

6. regarding the immediate post-operative period, the concerns of these gynecological patients seemed to lie in the category of the time spent in the PAR.
7. regarding the later post-operative period, the concerns of these gynecological patients seemed to center around the patient's feelings towards the surgery in relation to her family, friends, and work, as well as their limitations after surgery.
8. the anecdotal reconstruction of the interactions when the conversations were nurse-initiated indicated that these gynecological patients had little, if any, idea about many of the events they would be experiencing during the various phases of their hospitalization.
9. the amount of time spent with the patients in the pre-operative interview ranged from 15 minutes to 45 minutes, with a mean of 25 minutes. There did not appear to be any relationship between the difference in the anxiety level of the patient and the time spent with the patient.
10. all the gynecological patients visited pre-operatively by an operating room nurse did remember her visit and 86.7 percent found her visit beneficial.
11. over one-half (53.3 percent) of the women in the control group who were not visited by an operating room nurse pre-operatively,

responded that they did remember being visited by a "nurse" from the operating room pre-operatively. Three-fourths of these indicated that they found her visit beneficial.

### Conclusions

From this study, it is concluded:

1. that a visit by an operating room nurse pre-operatively, can help the patient undergoing major surgery cope with her anxieties by stimulating the "work of worrying" and thus prepare her psychologically for her surgery.
2. that the main concerns of patients pre-operatively revolved around their state of feeling -- about what would be happening during the pre-operative phase, about having the surgery, and about their surgery in relation to their family, friends, and their work in the later post-operative period.
3. that the patients have little, if any, conception about many of the events they would be experiencing during the various phases of their hospitalization.
4. that patients do remember a pre-operative ORN visit and the majority found the visit to be beneficial.
5. that patients cannot always differentiate between professional nurses and non-professional personnel.



6. that the amount of time required by patients in the pre-operative visit does not appear to have any relationship to their anxiety level.

### Recommendations

This study illustrated the need for more studies in the area of pre-operative visits by a professional nurse from the operating room. Therefore, the following studies are recommended:

1. this study should be replicated with a larger sample to determine if there would be a significant difference in the anxiety level of patients visited pre-operatively by an operating room nurse and those not.
2. this study should be replicated and the post-operative complications and course of recovery also tabulated to determine if there would be any significant difference in the post-operative recovery course of those patients ORN-visited and those not.
3. an exploratory study be carried out to see how the operating room nurse herself views pre-operative visits of surgical patients.

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APPENDIX A

TOOLS

Spielberger STAI

Pre-Operative Interview Guide

Evaluation of ORN Pre-Operative Visit

## SELF-EVALUATION QUESTIONNAIRE

Developed by C. D. Spielberger, R. L. Gorsuch and R. Lushene  
STAI FORM X-1

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 *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 am regretful .....	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 rested .....	①	②	③	④
9. I feel anxious .....	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 "high strung" .....	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 over-excited and rattled .....	①	②	③	④
19. I feel joyful .....	①	②	③	④
20. I feel pleasant .....	①	②	③	④



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## SELF-EVALUATION QUESTIONNAIRE

## STAI FORM X-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 tire quickly .....	①	②	③	④
23. I feel like crying .....	①	②	③	④
24. I wish I could be as happy as others seem to be .....	①	②	③	④
25. I am losing out on things because I can't make up my mind soon enough .....	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 am inclined to take things hard .....	①	②	③	④
32. I lack self-confidence .....	①	②	③	④
33. I feel secure .....	①	②	③	④
34. I try to avoid facing a crisis or difficulty .....	①	②	③	④
35. I feel blue .....	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 become tense and upset when I think about my present concerns .....	①	②	③	④



## PRE-OPERATIVE INTERVIEW GUIDE

Conversation	Initiated By	Anecdotal Reconstruction of Interaction
<u>Pre-Operative Phase</u> Enema at H. S.		
NPO after midnight		
Surgical shave		
Removal of dentures, nail polish, jewelry, etc., and reason why		
O. R. attire		
Voiding/Foley catheter		
Pre-Operative medica- tion, checking vital signs, putting up side- rails		
Trip to O. R.		
How patient feels about above events		
<u>Operative Phase</u> When patient first learned of need for surgery		
What Doctor told patient about surgery		
How the patient feels about having surgery		
Fact that nurse will be in O. R. to greet patient		
Wait in "twilight zone"		



Conversation

Initiated By . Anecdotal Reconstruction  
of Interaction

Why vital signs taken frequently		
<u>Later Post-Op Phase</u> Importance for turning, coughing, deep breathing; how to do it		
How to sit up in bed and dangle when getting up the first time		
Importance of early ambulation according to doctor's orders		
How patient feels about pain she'll experience, what kinds of pain she'll have, availability of medication if and when needed		
How patient feels about her surgery in relation to her family, friends, work, etc.		
What patient can and can't do when first leaving hospital; how long before she can do certain things		

Time spent with patient

\_\_\_\_\_

## EVALUATION OF ORN PRE-OPERATIVE VISIT

1. Were you visited by a nurse from the Operating Room on the evening before your surgery?

No \_\_\_\_\_

Yes \_\_\_\_\_

Don't remember \_\_\_\_\_

2. If yes, do you feel that her visit helped you in any way?

No \_\_\_\_\_

Yes \_\_\_\_\_ How? \_\_\_\_\_  
\_\_\_\_\_

3. If no, would you like to have had a nurse from the Operating Room come to see you that evening before surgery?

No \_\_\_\_\_

Yes \_\_\_\_\_ Why? \_\_\_\_\_  
\_\_\_\_\_

APPENDIX B  
CORRESPONDENCE

2577 N. W. Raleigh  
Portland, Oregon  
July 1, 1971

Dear Doctor:

In partial fulfillment of requirements for a Master of Science degree at the University of Oregon School of Nursing, I am undertaking a study of patients undergoing gynecological surgery and am interested in certain aspects of the role of the Operating Room Nurse in the care of these patients. You are invited to participate by giving your permission for me to ask some of your patients if they would be willing to serve as subjects for my study.

Usual nursing care and routine procedures would be carried out with your patients. My study would involve the utilization of a short, standardized questionnaire which would be administered by myself both pre-operatively and a few days post-operatively.

I have discussed this matter with Mrs. Ruth Wiens, Director of Nurses, and she has given me permission to utilize the facilities of St. Vincent Hospital for my study. I would like to begin collecting my data by July 12 and would appreciate your response as soon as possible. A self-addressed post card is enclosed for your convenience in indicating your willingness to assist with the study.

Upon completion of the study, copies of the report will be placed in the library at the University of Oregon Medical School.

Yours sincerely,

Leona M. Fisher, R.N.

Miss Fisher is a regularly enrolled graduate student at the University of Oregon School of Nursing. Any assistance you can offer her will be greatly appreciated.

May Rawlinson, Ph.D  
Thesis Adviser

## Sample Return Card

\_\_\_\_\_ Yes, you have my permission to ask my patients  
to participate in your study to begin July 12.

\_\_\_\_\_ No, I would prefer that you do not ask my  
patients to be subjects in your study.

Signed Dr.\_\_\_\_\_

2577 N. W. Raleigh  
Portland, Oregon  
July 1, 1971

Mrs. Ruth Wiens, R. N.  
Director of Nurses  
St. Vincent Hospital  
Portland, Oregon

Dear Mrs. Wiens:

In partial fulfillment of requirements for a Master of Science degree at the University of Oregon School of Nursing, I am undertaking a study of patients undergoing gynecological surgery and am interested in certain aspects of the role of the Operating Room Nurse in the care of these patients. I am submitting this request for your permission to conduct the study at St. Vincent Hospital.

Usual nursing care and routine procedures would be carried out with the patients. My study would involve the utilization of a short, standardized questionnaire which would be administered by myself both pre-operatively and again a few days post-operatively. Permission from the gynecological surgeons to ask their patients to participate as subjects in my study has also been requested.

I am enclosing a copy of my proposal for your review. Upon completion of the study, a copy of the report will be placed in the library at the University of Oregon Medical School.

Yours sincerely,

Leona M. Fisher, R. N.

Miss Fisher is a regularly enrolled graduate student at the University of Oregon School of Nursing. Any assistance you can offer her will be greatly appreciated.

May Rawlinson, Ph.D.  
Thesis Adviser



APPENDIX C

RAW DATA

RAW SCORES ON SPIELBERGER STAI  
EXPERIMENTAL GROUP

Subject	STATE			TRAIT		
	Early Pre-Op	Late Pre-Op	Difference	Early Pre-Op	Late Pre-Op	Difference
E-1	25	32	7	28	28	0
E-2	29	31	2	31	24	-7
E-3	33	47	14	29	33	4
E-4	33	68	35	38	34	-4
E-5	40	41	1	29	25	-4
E-6	46	56	10	45	45	0
E-7	54	62	8	43	40	-3
E-8	58	73	15	52	49	-3
E-9	26	27	1	28	25	-3
E-10	29	21	-8	34	36	2
E-11	33	37	4	44	44	0
E-12	41	40	-1	37	37	0
E-13	36	48	12	33	37	4
E-14	57	39	-18	61	60	-1
E-15	38	40	2	33	31	-2
Mean	38.5	44.1		37.7	36.5	
Standard Deviation	10.5	14.5		9.3	9.6	

RAW SCORES ON SPIELBERGER STAI  
CONTROL GROUP

Subject	STATE			TRAIT		
	Early Pre-Op	Late Pre-Op	Difference	Early Pre-Op	Late Pre-Op	Difference
C-1	54	55	1	54	53	-1
C-2	35	39	4	40	34	-6
C-3	39	38	-1	31	36	5
C-4	29	32	3	30	28	-2
C-5	34	36	2	33	41	8
C-6	52	46	-6	27	29	2
C-7	35	31	-4	26	22	-4
C-8	27	27	0	23	23	0
C-9	66	74	8	60	58	-2
C-10	34	41	7	43	34	-9
C-11	34	41	7	28	27	-1
C-12	36	40	4	35	29	-6
C-13	49	51	2	43	44	1
C-14	48	38	-10	27	55	28
C-15	40	32	-8	45	41	-4
Mean	40.8	41.4		36.3	36.9	
Standard Deviation	10.0	11.3		10.5	11.1	

AN ABSTRACT OF THE THESIS OF

LEONA M. FISHER

For the MASTER OF SCIENCE in NURSING EDUCATION

Date of receiving this degree: June 9, 1972

Title: THE RELATIONSHIP OF A PRE-SURGERY VISIT BY AN  
OPERATING ROOM NURSE TO THE ANXIETY LEVEL OF  
GYNECOLOGICAL PATIENTS

Approved: \_\_\_\_\_

(Assistant Professor in Charge of Thesis)

The purpose of this study was to determine if the operating room nurse could help the patient undergoing major gynecological surgery deal with her anxieties and cope with the stress of the situation to a significant degree through the establishment of rapport during a pre-operative visit the evening prior to surgery.

The null hypothesis tested was that there would be no significant difference in the anxiety level of patients undergoing major gynecological surgery who had been visited pre-operatively by an operating room nurse, and those patients who had not been visited pre-operatively by an operating room nurse.

Thirty patients meeting the criteria were randomly assigned to either an experimental or control group. The 15 assigned to the experimental group received the independent variable of an ORN (operating room nurse) visit, in addition to routine hospital pre-operative care, on the evening prior to surgery. The control group received only the routine pre-operative care by the ward personnel. The dependent variable of anxiety was measured by the use of the Spielberger State-Trait Anxiety Inventory and was given pre-operatively and before the ORN visit in the experimental group. It was again given the third or fourth post-operative day, but the subjects were asked to relate their responses as to how they felt early in the morning of the day of surgery.

A guide for the pre-operative visits was followed so that certain topics common to all surgical patients would be discussed. A record was kept as to whether conversations referring to listed topics were patient-initiated or nurse-initiated, and an anecdotal reconstruction of the interaction was also recorded by the operating room nurse conducting the visit. The amount of time spent with the patients in the pre-operative interview was also tabulated.

To evaluate the effectiveness of the pre-operative ORN visit, the women in both the experimental and control groups were asked three questions by the nurse-investigator in her post-operative rounds.

## Findings

On the basis of this study, the findings were as follows:

1. there was no significant difference in the anxiety level of gynecological patients visited pre-operatively by an operating room nurse and those who were not.
2. the mean anxiety scores on the State Anxiety section of the Spielberger STAI did indicate a slight trend towards increasing the anxiety level of those gynecological patients who were exposed to an operating room nurse visit pre-operatively.
3. the mean anxiety scores on the Trait Anxiety section of the Spielberger STAI showed very little difference between the early pre-operative and late pre-operative periods in both the experimental and control groups, indicating that neither group demonstrated more anxiety-proneness than the other for these two time periods.
4. the gynecological patients' main concern during the pre-operative phase of their hospitalization revolved around their feelings about what would be happening to them during this period.
5. the gynecological patients' main concern during the operative phase of their hospitalization revolved around their learning of the need for surgery, what the doctor had told them about their surgery, and the patient's feelings about having surgery.

6. regarding the immediate post-operative period, the concerns of these gynecological patients seemed to lie in the category of the time spent in the PAR.
7. regarding the later post-operative period, the concerns of these gynecological patients seemed to center around the patient's feelings towards the surgery in relation to her family, friends, and work, as well as their limitations after surgery.
8. the anecdotal reconstruction of the interactions when the conversations were nurse-initiated indicated that these gynecological patients had little, if any, idea about many of the events they would be experiencing during the various phases of their hospitalization.
9. the amount of time spent with the patients in the pre-operative interview ranged from 15 minutes to 45 minutes, with a mean of 25 minutes. There did not appear to be any relationship between the difference in the anxiety level of the patient and the time spent with the patient.
10. all the gynecological patients visited pre-operatively by an operating room nurse did remember her visit and 86.7 percent found her visit beneficial.
11. over one-half (53.3 percent) of the women in the control group who were not visited by an operating room nurse pre-operatively, responded that they did remember being visited by a "nurse" from

the operating room pre-operatively. Three-fourths of these indicated that they found her visit beneficial.

### Conclusions

From this study, it is concluded:

1. that a visit by an operating room nurse pre-operatively can help the patient undergoing major surgery cope with her anxieties by stimulating the "work of worrying" and thus prepare her psychologically for her surgery.
2. that the main concerns of patients pre-operatively revolved around their state of feeling -- about what would be happening during the pre-operative phase, about having the surgery, and about their surgery in relation to their family, friends, and their work in the later post-operative period.
3. that the patients have little, if any, conceptions about many of the events they would be experiencing during the various phases of their hospitalization.
4. that patients do remember a pre-operative ORN visit and the majority found the visit to be beneficial.
5. that patients cannot always differentiate between professional nurses and non-professional personnel.
6. that the amount of time required by patients in the pre-operative visit does not appear to have any relationship to their anxiety level.



## Recommendations

This study illustrated the need for more studies in the area of pre-operative visits by a professional nurse from the operating room. Therefore, the following studies are recommended:

1. this study should be replicated with a larger sample to determine if there would be a significant difference in the anxiety level of patients visited pre-operatively by an operating room nurse and those not.
2. this study should be replicated and the post-operative complications and course of recovery also tabulated to determine if there would be any significant difference in the post-operative recovery course of those patients ORN-visited and those not.
3. an exploratory study be carried out to see how the operating room nurse herself views pre-operative visits of surgical patients.