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# The Effectiveness of a Preoperative Patient Education Handbook in Decreasing Anxiety of Veterans Undergoing Elective Surgery

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THE EFFECTIVENESS OF A PREOPERATIVE PATIENT EDUCATION  
HANDBOOK IN DECREASING ANXIETY OF VETERANS  
UNDERGOING ELECTIVE SURGERY

by

GARLETTA WHITE STEEN, B.S.N.

THESIS

Presented to the Graduate Faculty of  
Incarnate Word College  
in Partial Fulfillment  
of the Requirements  
for the Degree of

MASTER OF SCIENCE IN NURSING

INCARNATE WORD COLLEGE

DECEMBER 1995

THE EFFECTIVENESS OF A PREOPERATIVE PATIENT EDUCATION  
HANDBOOK IN DECREASING ANXIETY OF VETERANS  
UNDERGOING ELECTIVE SURGERY


A Thesis

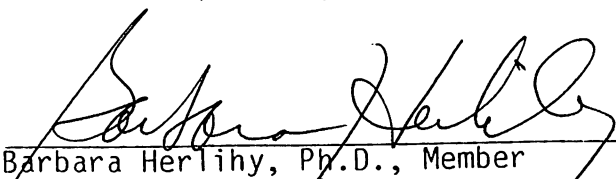
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## DEDICATION

This thesis is dedicated to my husband, Master Sergeant Archie Leroy Steen (U.S.A., Retired), and my three daughters, LaFay, Carla, and Angela Steen. My husband and daughters encouraged me to pursue a college degree to go with the title of registered nurse since they knew the love I have always had for nursing, starting as a licensed vocational nurse after 10 years of being a homemaker. Having a Bachelor of Science in Nursing degree has allowed me to take advantage of the opportunities that have brought me to this point in my life. My husband and children have been "the wind beneath my wings," pushing and challenging me to do all that I thought I could do and more. I, in turn, expected all three daughters to become registered nurses. Carla became a registered nurse in 1991, and LaFay and Angela are both seniors in a four-year nursing program in Houston, Texas. One day, much to my joy, we will be a family of nurses.

This thesis is also dedicated to my fellow members of Chi Eta Phi Sorority, Inc. One of the purposes of this sorority is to encourage continuing education in the field of nursing. Being united with and inspired by nurses from across the United States has provided me with sisterhood and role models. My sorority sisters observed and supported my endeavors through this entire thesis process while I served two terms of office as Regional

Director of the Middle South Region of Chi Eta Phi Sorority, Inc.

I hope that completion of this long process will help others to realize that it is never too late to go to college and to learn what my stepmother Fannie White taught me: Where there is a will to do something, there is a way to do it.

## ACKNOWLEDGEMENTS

I am indebted to many people for the successful completion of this thesis. I am indebted, first of all, to the South Texas Veterans Healthcare System-Audie L. Murphy Division for providing the opportunity to attend graduate school on a part-time basis with funding.

Next, thanks are extended to Dr. Jane Cardea and Dr. Barbara Herlihy for providing the guidance, the caring, and the assistance I needed to continue in the graduate program after a very stressful first attempt in the development of a research proposal. Their caring attitude exemplifies the best of nursing in ministering to the needs of others. I also greatly appreciate Dr. Gary Norgan, who agreed to serve as my thesis chairperson because he understood the veterans health care system and was my first research instructor. He provided expert direction, time, and encouragement during this thesis' development. Finally, my sincere thanks are expressed to my thesis committee for their guidance and counseling during this process. I have greatly benefited from having the feedback of all the committee members. I especially appreciate and thank Dr. Louis Agnese, Jr., for his inspiration and leadership as president of Incarnate Word College.

My heartfelt gratitude is extended also to Beverley Freeman, Chief Nurse of the hospital; Patricia Haney, Nurse Manager of the

Operating Room; and Julie Gimesky, Assistant Nurse Manager of the Post-Anesthesia Care Unit (PACU), without whom this research study would not have been completed. Also, much gratitude is extended to Carol Thompson and Kiska H. Varela, fellow graduate students who offered continuing encouragement and support, and to Herbert A. Escobar, statistician, for his highly professional analysis of the data.

Finally, I thank the PACU staff nurses and the Orthopedic and Surgical floor nurses; Dr. Dewayne Miller, Chief of Surgery Service; and Dr. Richard R. Ritter, Chief of Anesthesiology Service, for their help and support during this project. Also, I wish to express deep appreciation to the PACU staff for their assistance in data collection, my preceptorship as a PACU nurse, and the development of the Patient Handbook on Surgery. The PACU staff nurses (all registered nurses) were Diane Cortez-Torres, Gretchen Belanger, Yolanda Najjar, Virginia Barrera, Louis Garza, and Julie Gimesky. These highly proficient expert nurses were my preceptors and co-workers for one year. During that one year, this research proposal was written. With these nurses' help, the research was conducted after I had been selected to open the new South Bexar County Outpatient Clinic. I am truly appreciative of the help they provided.

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## **ABSTRACT**

**The Effectiveness of a Preoperative Patient Education  
Handbook in Decreasing Anxiety of Veterans  
Undergoing Elective Surgery  
Garletta White Steen, M.S.N., Incarnate Word College**

The amount of time available for nurses to give patients preoperative instructions is increasingly limited, and patients' state anxiety may interfere with learning. It is imperative that veterans, as well as other patient populations, learn skills to prevent perioperative complications and promote recovery. Preoperative teaching interventions conducted by nurses which are feasible and cost-effective may help to meet the demands of the current health care environment.

The purpose of this experimental, pretest/posttest study was to examine the effectiveness of a preoperative patient education handbook developed by postanesthesia care unit (PACU) nurses in decreasing state anxiety of veterans undergoing minor elective surgery. State anxiety was measured by the State Anxiety Scale of the State-Trait Anxiety Inventory, developed by Spielberger, Gorsuch, Luschene, Vagg, and Jacobs (1983). The population for the study was composed of veterans undergoing elective surgery in

a hospital which is part of the South Texas Veterans Healthcare System. The sample consisted of 38 patients admitted to the hospital for a variety of minor elective surgeries. The results provided implications for the use of the preoperative patient education handbook in this veteran patient population.

## TABLE OF CONTENTS

DEDICATION . . . . .	iv
ACKNOWLEDGEMENTS . . . . .	vi
ABSTRACT . . . . .	viii
LIST OF TABLES . . . . .	xiii
LIST OF FIGURES . . . . .	xv
Chapter	
1. INTRODUCTION . . . . .	1
Overview . . . . .	1
Problem Statement . . . . .	2
Purpose of Study . . . . .	3
Significance of Study . . . . .	3
Rationale for Study . . . . .	4
Conceptual Definitions . . . . .	5
Conceptual Framework and Theory . . . . .	5
Hypothesis . . . . .	9
Assumptions . . . . .	9
2. REVIEW OF THE LITERATURE . . . . .	10
Patient Education . . . . .	10
Preoperative Patient Teaching . . . . .	12
Anxiety . . . . .	15
Summary . . . . .	18

3. METHODOLOGY . . . . .	20
Research Design . . . . .	20
Setting . . . . .	21
Operational Definitions . . . . .	21
Sampling and Sample . . . . .	23
Protection of Human Subjects . . . . .	24
Instrumentation . . . . .	25
Preoperative Patient Education Protocol . . . . .	29
Data Collection Procedure . . . . .	33
4. RESULTS . . . . .	36
Primary Analysis . . . . .	37
Sample Characteristics/	
Demographics . . . . .	37
State Anxiety Scale Scores . . . . .	41
Patient Evaluation Questionnaire	
Responses . . . . .	42
Secondary Analysis . . . . .	46
5. DISCUSSION . . . . .	48
Findings and Conclusions . . . . .	48
Implications for Nursing . . . . .	49
Limitations and Recommendations . . . . .	50
REFERENCES . . . . .	54
APPENDIX	
A. INTERDISCIPLINARY PATIENT/FAMILY TEACHING	
FLOW SHEET FOR SURGICAL INTERVENTION . . . . .	60

B. AUTHORIZATION FOR PROTOCOL . . . . .	63
C. CONSENT FORM WITH COVER LETTER . . . . .	69
D. DEMOGRAPHIC DATA SHEET . . . . .	73
E. PERMISSION FOR USE AND STATE ANXIETY	
SCALE OF THE STATE-TRAIT ANXIETY	
INVENTORY (FORM Y) . . . . .	76
F. PATIENT EVALUATION QUESTIONNAIRE . . . . .	80
G. <u>PATIENT HANDBOOK ON SURGERY</u> . . . . .	82
H. COMMON THEMES OF PATIENT EVALUATION	
QUESTIONNAIRE RESPONSES . . . . .	84

## LIST OF TABLES

Table		Page
1.	Frequency Distribution of Demographic Data by Group and by Total Sample . . . . .	38
2.	Chi-Square Comparison across Sample Characteristics between Study Groups . . . . .	40
3.	<u>t</u> Test Comparison of Participants' Age across Study Groups . . . . .	41
4.	<u>t</u> Test Comparison of Pre- and Posteducation State Anxiety Scale Scores across Study Groups . . . . .	41
5.	<u>t</u> Test Comparison of Study Groups across Pre- and Posteducation State Anxiety Scale Scores . . . . .	42
6.	Patient Evaluation Questionnaire Response Frequency Analysis . . . . .	43
7.	Patient Evaluation Questionnaire Overall Response Theme Frequency Analysis . . . . .	45
8.	Chi-Square Comparison across Patient Evaluation Questionnaire Responses between Study Groups . . . . .	46

Table	Page
9. <u>t</u> Test Comparison of Preeducation State Anxiety Scale Scores by Study Group across Day of Assessment . . . . .	47
10. <u>t</u> Test Comparison of Study Groups within Day of Preeducation Assessment across Pre- and Posteducation State Anxiety Scale Scores . . . . .	47

## LIST OF FIGURES

Figure		Page
1.	Conceptual Model for Preoperative Instructions Adopting King's (1989) Theory of Goal Attainment . . . . .	8
2.	Preoperative Patient Education with <u>Patient Handbook on Surgery</u> . . . . .	31
3.	Preoperative Patient Education with Teaching Flow Sheet for Surgical Intervention . . . . .	32



## CHAPTER 1

### INTRODUCTION

#### Overview

Nurses are no longer afforded the luxury of spending several hours the evening before surgery preparing patients for surgery, and patients no longer remain in the hospital several days postoperatively to learn self-care activities (Ebbert, 1992). Typically, today's patients are coming into the hospital late the night before surgery or early the morning of surgery. This limited time for surgery preparation, including patient education, makes it imperative for nurses to identify the specific learning needs of surgery patients and implement a teaching plan to meet those needs (Barrett & Schwartz, 1981). With the current atmosphere of competition for patients, stiff budget cuts in federal programs, and downsizing of hospital units, an effective preoperative education program could be a useful marketing tool for nurses, surgeons, and health care facilities.

To effectively provide preoperative teaching, there must be congruence between what patients want to learn and what nurses believe it is important to teach (Rothrock, 1989). The Postanesthesia Care Unit (PACU) nurses in a Veterans Affairs (VA) facility, the South Texas Veterans Healthcare System-Audie L. Murphy Division, out of concern about high state anxiety levels

and lack of knowledge exhibited by preoperative patients, designed the Patient Handbook on Surgery. This handbook contains valuable information for preoperative teaching of patients, and the nurses would like to have it used for preoperative teaching throughout Audie L. Murphy Hospital (ALMH). These PACU nurses recognized that any preoperative interaction which occurs between a patient and a nurse provides an opportunity to answer questions, reduce patient anxiety, and obtain information important to postoperative patient care. Further, these nurses recognized that their preoperative teaching reduces the workload of floor nurses, who are often short staffed, and improves teamwork between departments. It was felt that a study should be undertaken to ascertain what effect the developed handbook, when used as a preoperative teaching tool, would have on the anxiety of veterans choosing to undergo elective surgery in the Audie L. Murphy Hospital.

### **Problem Statement**

Based on the observations of this investigator, it was estimated that over 33% of surgical patients admitted to the PACU at ALMH displayed high levels of anxiety preoperatively. A certain amount of anxiety is present and normal for any surgical patient (Epstein, 1976; Schmitt & Wooldridge, 1973). However, if the observed high anxiety levels could be reduced, there should be an expected significant improvement in postoperative patient outcomes. Therefore, it was believed by this researcher that both

the nonutilization of and the lack of demonstrated effectiveness in the use of preoperative teaching tools had resulted in or contributed to ineffective management of the preoperative state anxiety in many surgical patients.

### **Purpose of Study**

The purpose of this study was to determine the effectiveness of a preoperative patient education handbook in decreasing state anxiety levels of veterans undergoing elective surgery at the Audie L. Murphy Hospital, San Antonio, Texas.

### **Significance of Study**

First, a useful handbook for the surgical patient had been developed by the ALMH PACU nurses and the Patient Education Committee with the investment of time, money, energy, and concern for improving patient care. It was felt that this study would aid in justifying the use of this handbook throughout the hospital.

Second, no research study or validity estimates had been established for the developed preoperative patient education handbook, which was in current use. It was believed that the study would provide definitive data on the validity of the PACU handbook, thereby strengthening the claim for continued and more widespread utilization of the handbook.

Third, the intent of this study was to establish baseline information for future assessments of cost effectiveness and increased patient satisfaction derived from the use of the preoperative education handbook--both significant goals in the

economically constrained VA health care system. Written instructions such as those in the Patient Handbook on Surgery could be referred to repeatedly by the patient and be shared with the family for an additional, ongoing educational benefit of its use. It was also expected that an increase in self-care knowledge would, overall, improve all surgical patients' quality of life because each patient would have some control and ability to make choices regarding his/her medical care. Additionally, future use of the handbook for outpatient day surgery would be facilitated because it could be used in planned, regularly scheduled group classes given to patients and their families preoperatively or to patients before admission.

### **Rationale for Study**

The rationale for this study was based on several concerns. Although much has been written concerning preoperative teaching, no research studies dealing specifically with the veteran population were found in the reviewed nursing literature. However, "the rich and varied research which has underscored nursing efforts to enable patients to undergo surgical interventions in the best prepared manner, validates nursing's important role in providing quality patient care" (Rothrock, 1989, p. 598). The challenge today is to fine-tune nursing skills without compromising quality of care to reap the maximum benefits from each patient contact in an atmosphere of cost containment and time constraints.

### Conceptual Definitions

Definitions pertinent to the study were:

1. Patient education--the process of helping the patient to (a) promote his/her own and his/her family's health; (b) maintain his/her health or improve it as much as possible; and (c) learn to care for him/herself (DeWit, 1992).
2. Preoperative teaching--an active process that includes: (a) assessment of patients' learning needs and patients' readiness to learn; (b) teaching, using learning principles; and (c) evaluation of the effectiveness of the dialogue by observing the patients' responses (Kneedler & Dodge, 1994).
3. Anxiety--a state of apprehension, tension, concern, and/or uneasiness in response to a real or imagined danger which is often nonspecific (Kneedler & Dodge, 1994).

### Conceptual Framework and Theory

King (1989) utilized a systems framework as the basis for developing her conceptual framework and as a means to determine that health concerns related to nursing can be grouped into "three dynamic interacting systems: (1) personal systems, (b) interpersonal systems and (c) social systems" (p. 151). The personal system focuses on individual human beings who are rational and feeling and who react to their expectations, other events, individuals, and objects. The interpersonal system is the system in which the nursing process occurs, which connotes action, reaction, interaction, and transaction between the nurse and the

patient. The social system is "an organized boundary system of social roles, behaviors and practices developed to maintain values and the mechanisms to regulate the practices and rules" (King, 1981, p. 115). King's conceptual framework is based on the following assumption: "The focus of nursing is human beings interacting with their environment leading to a state of health for individuals, which is an ability to function in social roles" (Evans, 1991, p. 9).

King's (1981) theory of goal attainment was derived from her conceptual framework, with the focus of this theory being the interpersonal system because of what nurses do with and for patients. The theory of goal attainment is based upon 16 assumptions, combined and/or summarized here for brevity:

1. The first nine assumptions state that individuals are (a) social, (b) reacting, (c) perceiving, (d) sentient, (e) controlling, (f) purposeful, (g) rational, (h) action-oriented, and (i) time-oriented beings.

2. The perceptions, goals, needs, and values of nurse and client influence the interaction process.

3. The individual has a right (a) to receive knowledge about him/herself, (b) to participate in decisions, and (c) to accept or reject health care.

4. The health professional has responsibility to share information which is important for decision-making about health care.

5. The goals of recipients of health care and those of health care professionals may be incongruent.

King's (1981) theory of goal attainment was used in this study to guide a nursing intervention involving preoperative patient education. The perception of increased patient preoperative anxiety by both the nurse and the patient will lead to the mutually set goal of decreased anxiety. The exploration of means to achieve this goal will lead to the nurse making the following judgements:

1. Knowledge decreases anxiety.
2. Nurses have a role and the required skills or competencies for patient education.
3. Nurses assume that patients will be responsive to measures to decrease anxiety.

Further, judgements made by the patient will include:

1. Voluntarily participating in any activity to promote successful outcomes from surgery.
2. Making attempts to decrease anxiety.

From these derived judgements by the nurse and the patient, the transaction of patient education occurs and leads to the anticipated goal attainment of decreased preoperative anxiety for the patient. The linkage of these concepts is depicted in Figure 1.

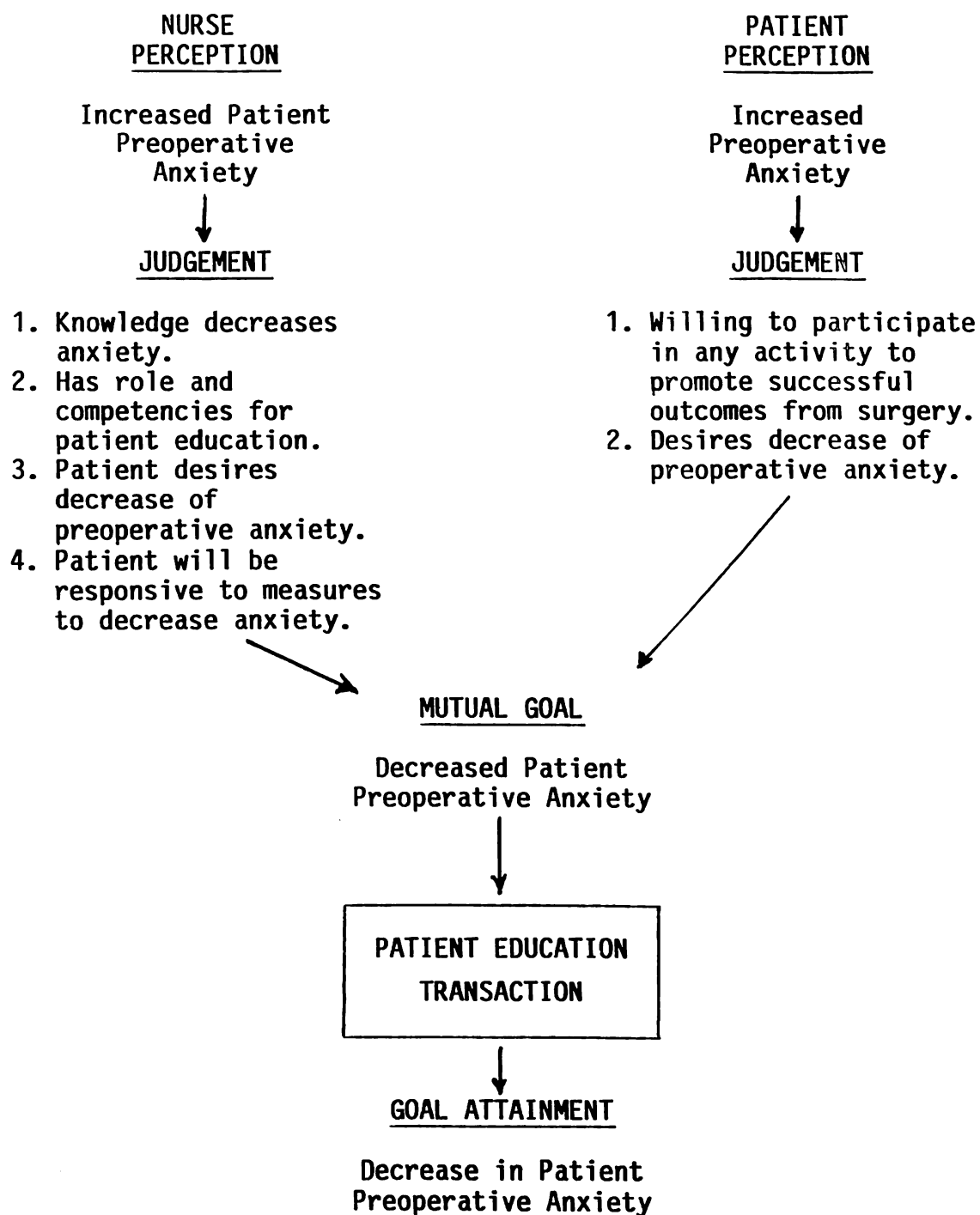


Figure 1. Conceptual model for preoperative instructions adopting King's (1989) theory of goal attainment.



### Hypothesis

The following hypothesis was formulated for this study:

Veterans undergoing elective surgery who receive preoperative teaching using the Patient Handbook on Surgery will have significantly decreased state anxiety levels compared to those who do not receive handbook instruction.

### Assumptions

For the purpose of this study, it was assumed that:

1. All postoperative patients would have received some type of preoperative instruction.
2. Patients would be willing to provide honest answers to the questionnaire.
3. A relationship exists between education or instruction and altered levels of anxiety.

## CHAPTER 2

### REVIEW OF THE LITERATURE

This chapter initially reviews the literature on patient education, preoperative teaching, and anxiety as these concepts relate to the proposed study. A brief summary follows this review.

#### Patient Education

In 1975, the American Nurses Association (ANA) published a document entitled The Professional Nurse and Health Education. According to this document, the professional nurse's responsibility for health education includes teaching the patient and his/her family relevant facts about specific health care needs and supporting appropriate modification of behavior. Later, in the ANA's (1979) Model Nurse Practice Act, patient education was identified as a component of the registered nurse's practice. The standards and the legal guidelines that formalize the nurse's responsibility to teach others are found in the nurse practice act of most states, the professional statements of the American Nurses Association, the American Hospital Association's (1972) well-known A Patient's Bill of Rights, and the Joint Commission on Accreditation of Hospitals' (1982) Standards for the Accreditation of Hospitals. Each document emphasizes the importance of nurses providing patients and families with an opportunity to learn

during their health care encounters.

Patient education is built on nurse-patient relationships that foster growth through respecting one another, caring, and working together (Rankin & Duffy, 1983). The specific objectives of patient education are dictated by each patient's individual needs where the nurse is basically concerned with three general areas (domains) of learning: (1) cognitive (knowing), (2) psychomotor (doing), and (3) affective (feeling) (DeWit, 1992). Further, the teaching-learning process is similar to the nursing process in that both are sequential in nature, flexible, and subject to change as the patient's needs and problems require.

Patient education is often instrumental in producing a change in behavior (DeWit, 1992). For example, if someone is able to answer questions (knowing), perform a certain task (doing), and show, by acting in a certain way, that he/she appreciates the value of what he/she has learned (feeling), then the individual has incorporated knowledge in each of the three learning domains. According to DeWit (1992), evaluation of the teaching-learning process across these three domains provides a means for assessment and subsequent improvement in teacher and learner. This evaluation process should help the nurse to improve his/her teaching competence and help the patient to improve or to sustain his/her health status.

Many early research studies on patient education programs were basically anecdotal in nature, with no outcome measures

reported. Studies done in the 1970s by Lindeman and Stetzer (1973) and others, such as Miller (1977), Partridge (1978), and Pender (1974), are still cited as models of early research on patient education. Later, patient education research demonstrated the importance of considering multiple independent variables and their impact on patient teaching outcomes (Rankin & Stallings, 1990). For example, Lindeman (1988), in a review of nursing research on patient education published from 1965 through 1986, found that, while some of the 120 studies reviewed were conducted with scientific rigor, others were limited in their generalizability by small sample size, lack of randomization, and other design and methodology problems. It has been suggested by many researchers that further research is needed in the area of patient education.

### **Preoperative Patient Teaching**

Preoperative patient teaching has been a focus of nursing research to examine the effectiveness of teaching, teaching strategies, and timing of teaching over the past 20 years (Lindeman, 1988). A comparative study by Lindeman and Van Aernam (1971) assessed the effect of structured and unstructured preoperative teaching on patients' ability to cough and deep-breath, length of hospitalization, and postoperative analgesic use. The authors collected data from a convenience sample of 261 patients undergoing nonemergency surgical procedures using a general anesthetic. Procedures involved included chest and neck,

abdominal, and other (extremities, rectal, vaginal, genitourinary, back, and cystogram-pyelogram) surgery. Patients admitted from May 24 through June 18, 1970, served as the control group (n=135). Patients admitted from November 1 through November 27, 1970, formed the experimental group (n=126). The control group was provided with unstructured preoperative teaching by registered nurses. No policies or procedures had been established by the hospital for preoperative teaching, and each nurse taught as she thought best for the patient concerned. The experimental group received structured preoperative teaching using a consistent instruction for the type of surgery involved and an audiovisual aid, the Sound-on-Slide Program, to demonstrate deep-breathing, coughing, and leg and foot exercises. Ventilatory function tests were used to assess the patients' ability to cough and deep-breath. The patients' charts were used to collect data concerning length of hospital stay and analgesic use. No significant difference was found between the control and the experimental group for analgesic use. However, the study did support the beneficial use of structured preoperative teaching in reducing hospital stay and improving lung function.

Meta-analyses of the literature completed by Young, de Guzman, Mathis, and McClure (1994) found support for positive effects of psychological intervention (such as a preoperative visit by a PACU nurse) and psychoeducational intervention (structured and unstructured preoperative education) on recovery

from surgery, including clinical and cost-saving effects (i.e., decreased length of hospital stay, decreased medical complications such as atelectasis, and increased productive activities after discharge). Patients who received preoperative instructions were found to have more positive outcomes (i.e., less pain, less anxiety) than those who did not, although the positive effects were only "average" and the researchers cautioned that there was still room for improvement.

Young et al. (1994) also conducted a study using a convenience sample of 38 women having abdominal surgery (hysterectomies). This study tested the effects of a preadmission teaching brochure that contained specific postoperative exercises and evaluated preoperative teaching time, state anxiety, length of hospital stay, patient satisfaction, and return to functional status of morning admission surgical patients. The findings did not support the use of preadmission teaching booklets containing specific exercises such as coughing, deep-breathing, turning in bed, toe pointing, and leg bends. Although the results were questioned due to the small size of the study sample, the fact that preoperative instruction using a handbook as a teaching strategy was not successful added important information to this growing body of literature.

In a study conducted by Lepczyk, Raleigh, and Rowley (1990) on timing of preoperative patient teaching, 72 patients attended preoperative instruction class either as an inpatient the day

before surgery or as an outpatient four to eight days before surgery. Anxiety and knowledge levels were measured before and after the preoperative instruction class and the evening before surgery. No differences were found between the groups on a measure of anxiety level. This finding indicated that it made little difference to perceived anxiety whether the patients/ subjects received preoperative information from one to seven days before scheduled surgery; however, the amount of knowledge gained from the class was significantly greater for the outpatient group than the inpatient group.

### **Anxiety**

Mueller (1992) stated that anxiety is a condition no one is likely to escape. Further, he noted that sometimes the circumstances eliciting anxiety were found to be clear to the person, such as a job interview, whereas, at other times, the causal agent was more difficult to identify. It was also noted that the anxiety condition may be short-lived, lasting perhaps only till the eliciting agent can be well-defined and some coping action taken, or anxiety may be more enduring.

Kierkegaard (cited in Whitley, 1994) has been credited with the earliest comprehensive discussion of anxiety. He described anxiety as a vague, diffuse uneasiness, different from fear in that no apparent danger is present. Another early scholar who addressed anxiety and fear was Freud (cited in Whitley, 1994). It is Freud's interpretations of anxiety as a concept which most

commonly remain in use today. According to Whitley (1994), "an important influence on conceptualization of anxiety and fear comes from the neoFreudian theorists, who emphasized the importance of environmental as well as hereditary or constitutional influences on human behavior" (p. 144).

Anxiety is often defined as "an unpleasant emotional state or condition which is characterized by subjective feelings of tension, apprehension, and worry, and by activation or arousal of the autonomic nervous system" (Spielberger, 1972, p. 482).

Anxiety is somewhat difficult to operationalize because it seems to be a part of many other psychological experiences. Two studies conducted by Tomazewski and Mackey (cited in Epstein, 1976) to investigate the relationship of anxiety to fear and to other states of arousal revealed that anxiety was treated by the subjects as a broader concept than fear. Anxiety was among the top 10 nursing diagnosis categories recorded yet received the lowest validity scores in Levin, Krainovich, Bahrenberg, and Mitchell's (1989) study. Kim and associates (quoted in Whitley, 1994) found that "the defining characteristics of anxiety most commonly listed by nurses were: 'psychosocial indicators of stress' (anxious, tense, restless) and 'concern about life events' (illness, future, family, finances, job)" (p. 144). Levin et al. (1989), Lopez and Risey (1988), Metzger and Hiltunen (1987), and Whitley (1988) reported that two characteristics, "anxious" and "apprehension," figured as critical indicators in their studies.



Wake, Fehring, and Fadden (1991) reported that the characteristics of "anxious," "panic," and "nervous" were critical indicators in their study. Thus, the diagnosis anxiety is still in need of empirical validation (Whitley, 1994).

Schmitt and Wooldridge (1973) supported the beneficial effects of preoperative procedural teaching as a format to discuss anxiety. In their experimental study, a convenience sample of 50 male patients matched according to surgical procedure and "level of threat" were randomly assigned to an experimental and a control group. The experimental subjects participated in group sessions the evening before surgery to discuss their feelings about surgery and receive health teaching. The control group received no nursing intervention beyond routine preparation for surgery and instructions for coughing and deep-breathing. Although the control group did not receive any type of comparable group interaction, a flaw in methodology that could have compromised study results, the findings of this study supported the hypothesis that the experimental nursing intervention of group sessions on the evening before surgery would reduce stress (anxiety).

Johnson and Frank (1994) conducted a study to evaluate the effectiveness of a telephone intervention in reducing anxiety of families of patients in an intensive care unit using a quasi-experimental, pretest/posttest, control group design. They found that a telephone intervention program can be effective in reducing the anxiety of family members. However, the sample size (24) was

very small, which limits application of the study findings to only the sample of study participants.

Since nursing diagnoses were developed in 1973, their validity has been the subject of continued debate and concern for the nursing profession (Whitley, 1994). Anxiety, in particular, has been noted for its low validity scores (Levin et al., 1989). Some authors suggested that there was a need to differentiate between the diagnoses of anxiety and fear and that the early nursing diagnoses were not based upon the scholarly processes now required by the Diagnosis Review Committee before consideration for acceptance (Whitley, 1994). Although a scholarly study was conducted by Whitley (1994) to distinguish anxiety from other diagnostic categories, study results were similar to the findings of other nurse diagnosis validation studies on anxiety (see, e.g.: Levin et al., 1989; Lopez & Risey, 1988).

### Summary

Patient education research has shown that multiple factors impact on patient teaching outcomes, often making the specific prediction of outcomes difficult. However, preoperative patient teaching studies have demonstrated that patient teaching does improve some postoperative outcomes, e.g., by reducing patient pain and anxiety, decreasing length of hospital stay, and increasing overall cost-effectiveness of hospitalization. Anxiety remains a condition which no one can escape, but anxiety is difficult to describe, especially from the precise, operational or

definitive perspective required of most research designs. The knowledge and the reassurance given to patients by nurses through patient education and preoperative teaching continue to be validated as beneficial for the reduction of anxiety, but this investigator's search of the literature revealed that no patient education or preoperative teaching research with a veteran population has been reported.

## **CHAPTER 3**

### **METHODOLOGY**

In this chapter, the research design, setting, operational definitions, sampling and sample, ethical considerations, instrumentation, preoperative patient education protocol, design and/or methodological limitation, data collection procedures, and data analysis are discussed.

#### **Research Design**

This study utilized an experimental pretest/posttest design with random assignment of a convenience sample of subjects to the experimental and the control group. Random assignment was accomplished by the use of a table of random numbers. Polit and Hungler (1993) state that, "to qualify as an experiment, a research design need only possess the following three properties: (1) manipulation, (2) control, and (3) randomization" (p. 13).

The justification for the use of the experimental design is that it can be used in a clinical setting. According to Polit and Hungler (1991), experimental designs "are the most powerful method available for testing hypotheses of cause-and-effect relationships between variables" (p. 159). The authors state that experimental designs are important to nurse researchers because of prediction and control attributes and that the strength of an experiment lies in the confidence with which causal relationships can be inferred.

In addition, this type of study design was appropriate because it was inexpensive, easy to implement, and a powerful method of testing the relationships between the independent variable (a specific preoperative patient education strategy--the Patient Handbook on Surgery) and the dependent variable (state anxiety).

### **Setting**

The setting for this study was the South Texas Veterans Healthcare System-Audie L. Murphy Division. The Audie L. Murphy Hospital is a 650-bed teaching facility affiliated with the University of Texas Medical School located in San Antonio, Texas. The ALMH conducts approximately 5,530 surgeries per year, of which 1,843 are identified as elective surgery. Veterans come from all over South Texas to receive surgical care, and many veterans are flown in from other parts of the United States to receive special treatments not available in their designated VA health care facility.

### **Operational Definitions**

For the purpose of this study, the following operational definitions were applicable:

1. State anxiety is an individual's unpleasant consciously perceived feelings of tension and apprehension in response to a transitory or situational stressor (i.e., apprehension, tension, nervousness, worry) as measured by the State Anxiety Scale of the State-Trait Anxiety Inventory (Form Y) (Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983).

2. A Postanesthesia Care Unit nurse is any registered nurse employed at ALMH who works more than 20 hours per week in the Postanesthesia Care Unit (commonly known as the "recovery room") and routinely participates in preoperative patient education activities.

3. Experimental group preoperative teaching is all instructions provided to ALMH patients using the Patient Handbook on Surgery and teaching protocol.

4. Control group preoperative teaching is the usual verbal instructions given to ALMH clients before surgery. These instructions are outlined on the Interdisciplinary Patient/Family Teaching Flow Sheet for Surgical Intervention (see Appendix A).

5. The preoperative period begins with the decision to perform surgery and continues until transfer of the patient into the operating room.

6. The postoperative period begins with the end of surgery and the admission of the patient into a postanesthesia care unit (recovery room) and extends until the patient is discharged from the hospital.

7. The perioperative period is comprised of the preoperative, the intraoperative, and the postoperative time frame (Beare & Myers, 1994).

8. A veteran is a person who has served in the Armed Forces of the United States of America and is eligible for medical and surgical health care within a national network of VA hospitals.

9. Elective surgery is a procedure or treatment of a nonemergent nature chosen and planned at a patient's convenience.

### **Sampling and Sample**

A convenience sample of veteran patients at ALMH was obtained from the posted surgery schedule across a two-month period. Once a patient had agreed to participate in the study, he/she was randomly assigned to the experimental or the control group.

To be included in the study, patients had to be over age 21 and be scheduled for elective surgery. Other inclusion criteria were that potential subjects would (1) have had no major medical problems in the past year; (2) have no history of psychiatric disorders; (3) be able to read and understand English; (4) be able to give voluntary consent for study participation; and (5) be undergoing a conservative type of elective surgery such as cosmetic, oral, orthopedic, plastic, and other simple operations not considered to involve a risk to life. Patients undergoing major or radical surgery, such as coronary artery bypass graft or extensive removal of diseased tissues to obtain a cure, were not included in the study sample.

Possible causes of sampling error were the possibility of a male-only population or a small sample size (30 or less). The sample, as anticipated, was predominantly male with only two females participating. This imbalance in gender was due primarily to the nature of the veteran population. Sampling error is usually larger with small samples and decreases as sample size

increases (Burns & Grove, 1993). The researcher obtained 38 subjects (19 for each group) over the two-month period of the conduct of the study. That number decreased the chance of sampling error related to small sample size.

### **Protection of Human Subjects**

The research protocol was not an invasive one, eliminating the possibility of physical harm to the participants. Every effort was exerted to protect the subjects: Approval for the protocol was obtained from the University of Texas Health Science Center, the Incarnate Word College Institutional Review Board, and the ALMH Institutional Review Board (see Appendix B). Full explanation of the study was given to the participants, and confidentiality was maintained through the use of numbers only on the questionnaires to identify participants' responses with assigned numbers from the consent forms. Facility guidelines for obtaining informed consent were followed after obtaining institutional approval to conduct the study.

The investigator met with each potential subject the day preceding the scheduled surgical procedure to give the individual an oral explanation of the nature of the study. The participants were informed that this research would be an ordinary clinical study conducted by this researcher to complete a master's thesis. Following this explanation, the patient was given an informed consent form along with the cover letter required by ALMH (see Appendix C). The investigator advised the person to read the



letter and the consent form, then left the room for a brief period to allow the individual time for consideration. If the patient agreed to take part in the study, oral and written consent were obtained in the presence of a witness. A copy of the cover letter and the consent form was given to each subject, and a copy was placed in his/her chart. A number was assigned each participant and recorded on a sheet of paper retained in a separate, secure location from study questionnaires. This process assured ease of patient access to obtain postoperative responses while maintaining patient confidentiality from all but the principal investigator.

### **Instrumentation**

Three tools were used for the collection of data in this study. By means of the Demographic Data Sheet (see Appendix D), personal information regarding the study subjects was collected. The collected demographic data consisted of nine basic items related to information on age, gender, income, education, marital status, ethnic origin, current health problems, past surgeries, employment, and family support sources. In addition, date of scheduled surgery and type of elective surgery were recorded along with random assignment to the experimental or the control group.

The level of state anxiety in the participants was measured by means of the State Anxiety Scale (see Appendix E) of the State-Trait Anxiety Inventory (STAI), Form Y (Spielberger et al., 1983). The State Anxiety Scale was administered twice, as a pretest before the surgical procedure prior to patient education and as a

posttest following patient education.

The State-Trait Inventory (Spielberger et al., 1983) was developed to be individually self-administered or be administered in groups, and it usually can be completed in less than 10 minutes. The STAI State Anxiety Scale (refer to Appendix E) consists of a 20-item self-report instrument, with responses ranging from 1 (Not at all) to 4 (Very much so) on a four-point Likert scale. The State Anxiety Scale requires people to describe how they feel at a particular moment in time (in this case, when they are taking the test). It has been demonstrated in a number of studies that State Anxiety scores increase in response to situational stress and decline under relaxed conditions (Spielberger et al., 1983). Therefore, higher scores indicate greater levels of anxiety.

Reliability of a measuring tool can be assessed by three major quantitative methods: (1) stability, (2) internal consistency, and (3) equivalence. The chosen method of reliability assessment depends on the nature of the instrument and the aspect of the reliability concept which is of greatest interest (Polit & Hungler, 1991). Ramanaiah, Franzen, and Schill (1983) reported impressive evidence of the internal consistency of the STAI for two large samples of undergraduate students. Cronbach alpha coefficients for these samples were  $r=.92$  and  $r=.90$  for the STAI State Anxiety Scale. The median corrected item scale correlation coefficient of  $r=.60$  for the State Anxiety items is

considerably higher than that reported in the STAI test manual (Spielberger et al., 1983).

On the basis of the factor analysis of the original STAI (Form X) items and a rational and empirical evaluation of the psychometric properties of each original and replacement item, 30% of the original State Anxiety and Trait Anxiety items were replaced (Spielberger et al., 1983). Spielberger, Vagg, Barker, Donham, and Westberry (1980) used 424 tenth-grade male ( $n=202$ ) and female ( $n=222$ ) high-school students for separate analyses of the 40 STAI (Form Y) items. The 40 items were factored by the extraction method with squared multiple correlations for estimates of communality. Eigenvalues were plotted against eigenvectors; a determined number of factors were extracted and rotated by varimax. The authors identified four clearly defined factors: (1) state anxiety present, (2) state anxiety absent, (3) trait anxiety present, and (4) trait anxiety absent. These four factors satisfied the criteria of simple structure, parsimony, and psychological meaningfulness.

Vagg, Spielberger, and O'Hearn (1980) completed further study of the factor structure of the revised STAI (Form Y) with 1,728 male Air Force recruits. The authors used the same procedures and criteria for factor extraction as Spielberger et al. (1980). Vagg et al. (1980) reported that the factor structure for the revised STAI (Form Y) was exceptionally stable and substantially more consistent than was the case for the original STAI (Form X).

Additionally, the investigators compared the factor analysis for the Air Force sample with that of the male sample from Spielberger et al.'s (1980) study. All of the confactor correlations exceeded  $r=.90$ , strongly exhibiting the congruence of the corresponding factor identified in the two samples and offering further proof of the state-trait distinction in the measurement of anxiety (Vagg et al., 1980).

In evaluating a psychometric instrument, validity is an important issue and was a concern in developing the STAI (Spielberger, Gorsuch, & Lushene, 1970). Each State Anxiety item was selected on the basis of construct validity as demonstrated in higher scores in stressful situations and lower scores after relaxation training (Spielberger & Vagg, 1984). Ludenia, Donham, Sands, and Holzer (1984), in a review of published literature, found that data on the STAI (Form Y) collected from samples of college students and United States Air Force recruits suggested that the instrument possessed sound psychometric qualities: high internal consistency, sound factorial structure, and high content validity.

In scoring the STAI, each item is given a weighted score of 1 to 4. A rating of 4 for 10 of the State Anxiety Scale items denotes the presence of a high level of anxiety (e.g., "I feel frightened," "I feel upset") whereas a high rating for the remaining 10 items indicates the absence of anxiety (e.g., "I feel calm," "I feel relaxed"). "The scoring weights for the anxiety-

present items are the same as the blackened numbers on the test form. The scoring weights for the anxiety-absent items are reversed, i.e., responses marked 1, 2, 3, or 4 are scored 4, 3, 2, or 1, respectively." Anxiety-absent items having reversed scoring weights on the State Anxiety Scale are: 1, 2, 5, 8, 10, 11, 15, 16, 19, and 20. In order to score the State Anxiety Scale, one simply adds the weighted scores for the 20 items of the scale, being sure to reverse the above listed item scores. State Anxiety Scale scores can vary from 20 to 80. The scale is scored by hand using the scoring key (Spielberger et al., 1983, p. 12).

The subjects used the Patient Evaluation Questionnaire (see Appendix F), which contained three open-ended questions, to identify additional patient educational needs and the area of preoperative teaching which was most helpful to them during the postoperative period. This questionnaire was devised by the researcher and had not been tested for reliability and validity prior to its use in this study.

### **Preoperative Patient Education Protocol**

An organizational meeting was held in the PACU with the head nurse, the assistant head nurse, and the staff members to gain their support for this study and to ascertain which six nurses (two from each shift) would be willing to be trained for preoperative patient education and data collection. The need for three nurses for each education protocol arose from the fact that this would ensure that a PACU nurse connected with the study would

be on duty each day and that coverage of different shifts would be possible.

Following selection of the six PACU nurses, a team of three PACU nurses were trained to conduct preoperative patient education sessions using the Patient Handbook on Surgery (see Appendix G), covering it page by page. In addition, three PACU nurses were trained to perform the routine education of preoperative patients using the Interdisciplinary Patient/Family Teaching Flow Sheet for Surgical Intervention (refer to Appendix A).

Once the nurses had been trained, an outside observer attended preoperative education sessions of each nurse to evaluate and document the effectiveness of each nurse in utilizing the teaching format and to ascertain that there was agreement in the way instructions were given to both the experimental and the control group, thus assuring consistency of the presented information for both groups. The training and the subsequent evaluation were two strategies designed to control the threat to the study of variance in protocol implementation. Figure 2 presents the topical outline for the education protocol using the Patient Handbook on Surgery, and Figure 3 presents the topical outline for the education protocol using the Interdisciplinary Patient/Family Teaching Flow Sheet for Surgical Intervention.

The study design was communicated to all nurses on units caring for surgical patients undergoing elective surgery. Steps were taken to minimize situational contaminants and to achieve

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## TOPIC OUTLINE

### INTRODUCTION

### NEED FOR SURGERY

### ADMISSION PROCEDURES

- \* Laboratory (blood test)
- \* Heart station (EKG)
- \* Radiology (x-ray)
- \* Nursing admission process

### INFORMED CONSENT FOR SURGERY (Obtained by physician)

### ANESTHESIA--Types given by anesthetist (He/she will visit patient)

- \* General--put to sleep
- \* Spinal--awake, numb, feel no pain
- \* Local--medicine injected to make surgical site numb

### INSTRUCTIONS--To remember

- \* Night before surgery
- \* Morning of surgery
- \* Holding area surgery prep

### OPERATING ROOM

### POSTANESTHESIA CARE UNIT (Recovery Room)

### RETURN TO ROOM--Things to remember to do

- \* Coughing and deep-breathing exercises
- \* Using the incentive spirometer

NOTE: An addendum will be added, to include comfort measures, turning, and body movement, at the next printing of the handbook

### DISCHARGE INSTRUCTIONS

### QUESTIONS AND ANSWERS

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Figure 2. Preoperative patient education with Patient Handbook on Surgery.

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## TOPIC OUTLINE

### INTRODUCTION

### NEED FOR SURGERY

### PRESURGERY PROCEDURES (Lab, EKG, x-ray)

### DISEASE PROCESS TOPICS (Covered by physician)

### INFORMED CONSENT FOR SURGERY (Obtained by physician)

### ANESTHESIA ALTERNATIVES (Given by anesthetist)

### CONSENT AND RISKS (Discussed by anesthetist during patient visit)

- \* Holding area (PACU) line insertion/wait
- \* IVs
- \* Arterial
- \* CVCs
- \* Anesthesia induction

### UNIT ORIENTATION/POLICIES

- \* Visiting policy/call light
- \* Valuables/dentures
- \* Bowel prep/NPO after MN
- \* Preoperative showers x 2

### PAIN/ANXIETY (0-10)

- \* Pain/anxiety control options
- \* Preoperative/postoperative medications
- \* PCA/IM/IV/epidural
- \* Positioning
- \* Positioning/splinting
- \* Music therapy/reading/relaxation techniques/express feelings

### OPERATING ROOM SUITE

- \* Topics will be discussed by operating room nurse before surgery.
- 
- 

Figure 3. Preoperative patient education with Teaching Flow Sheet for Surgical Intervention.



consistency of conditions for the collection of data in the following ways:

1. Constancy in communications to the subjects and in the treatment protocol for preoperative patient education was maintained. Data collection did not begin until all six nurses followed the established education protocol 80% of the time.
2. Randomization was utilized to secure comparable participant numbers for the experimental and the control group.
3. All patients received some form of preoperative teaching in the hospital.

#### **Data Collection Procedure**

The surgery schedule was reviewed each day for cases to be completed the following day. All patients who would be having elective surgery were invited to participate in the study. Those that agreed to participate were given a number which had been randomly assigned to either the experimental or the control group. Random selection of subjects was achieved by use of a table of random numbers, with every other selected number assigned to the control group.

Before the Demographic Data Sheet and the initial State Anxiety Scale were completed, the nurse explained the overall objective of the research study. Potential participants were told that the nursing staff wished to be attentive to the concerns of surgical patients. Additionally, these individuals were informed that the obtained data would be used to examine the effectiveness

of current nursing care of patients who undergo elective surgery in order potentially to improve care in the future. Reading and signing the consent form signified a patient's agreement to participate in the study.

Following a short preoperative interview to collect the demographic data, the State Anxiety Scale of the State-Trait Anxiety Inventory was administered with directions to answer this instrument based upon "how you feel right now." The participants then received preoperative education by a trained PACU nurse using either the experimental handbook protocol or the traditional preoperative education using the approved Interdisciplinary Patient/Family Teaching Flow Sheet for Surgical Intervention. Additionally, subjects in the experimental group were given the handbook at the time preoperative teaching was done.

In the posteducation portion of the study, the State Anxiety Scale was administered once again on the day preceding surgery before any preoperative medications were given at bedtime. Subjects in the control group were given the patient handbook following completion of this second questionnaire. Following both pre- and posttest administration of the State Anxiety Scale, each individual was interviewed, provided a chance to ask about the study protocol, and asked to complete the Patient Evaluation Questionnaire. Also, all subjects were informed that a summary of the research results would be mailed to their home address following the completion of the study. Lastly, the subjects were

reminded not to talk about the research with other patients, who might become part of the study, and then they were thanked for their participation.

## CHAPTER 4

### RESULTS

This chapter reports the results of this experimental study in which perioperative veteran patients were administered three questionnaires to determine the effectiveness of a preoperative patient education handbook in decreasing state anxiety of veterans undergoing elective surgery. The subjects were randomly assigned to the control group (Group A) or the experimental group (Group B) from the posted daily surgery schedule. The control group (50% of sample, n=19) received the usual verbal instructions given to ALMH patients before surgery; the experimental group (50% of sample, n=19) received instruction from the Patient Handbook on Surgery.

This chapter first reviews sample characteristics. Included in this initial data presentation are the results of a variety of demographic assessments, including an assessment of homogeneity of the two groups. Primary data analysis procedures involved the use of independent group t test comparisons between Group A (control) and Group B (experimental) for preeducation State Anxiety Scale scores and posteducation State Anxiety Scale scores. Next, t test comparisons of preeducation and posteducation State Anxiety Scale scores within each of the two study groups (A and B) were conducted. Finally, Patient Evaluation Questionnaire responses were assessed using a frequency count for Yes/No responses,

followed by a comparative method for pertinent input regarding the patients' perceptions or desires during the preoperative period. Differences between the experimental and the control group in identified themes were assessed using a frequency distribution technique reporting percentages (Polit & Hungler, 1993).

### **Primary Analysis**

The data in the study were analyzed using descriptive and inferential statistics. Statistical analyses were conducted by a professional statistician on a computer using the Statistical Package for the Social Sciences (Statistical Analysis System Institute, no date). An alpha level of  $p=.05$  was selected as the level of significance for the t tests because it is, in general, the minimally acceptable level for alpha in scientific research (Polit & Hungler, 1993).

### **Sample Characteristics/Demographics**

A frequency distribution of demographic data was first computed for each group and the total study sample (see Table 1). The assessed variables included age, gender, day of surgery, marital status, educational level, ethnicity, income, current health programs, past surgeries, employment, and family/social support. Data analysis procedures were based on a total sample of 38 veterans undergoing minor elective surgery.

Of the 19 members of Group A (control), 10 (52.6%) completed the questionnaires the day of surgery and 9 (47.4%) completed the questionnaires the day before surgery. Of the 19 subjects

Table 1

Frequency Distribution of Demographic Data by Group and Total Sample

Variable	Group A		Group B		Total	
	Freq.	Pct.	Freq.	Pct.	Freq.	Pct.
<b>Age</b>						
< 50	5	26.3%	6	31.6%	11	28.9%
50 - 59	1	5.3%	6	31.6%	7	18.4%
60 - 69	8	42.1%	4	21.1%	12	31.6%
>= 70	5	26.3%	3	15.8%	8	21.1%
<b>Total</b>	<b>19</b>	<b>100.0%</b>	<b>19</b>	<b>100.0%</b>	<b>38</b>	<b>100.0%</b>
<b>Gender</b>						
Male	18	94.7%	18	94.7%	36	94.7%
Female	1	5.3%	1	5.3%	2	5.3%
<b>Total</b>	<b>19</b>	<b>100.0%</b>	<b>19</b>	<b>100.0%</b>	<b>38</b>	<b>100.0%</b>
<b>Day of Surgery</b>						
Yes	10	52.6%	10	52.6%	20	52.6%
No	9	47.4%	9	47.4%	18	47.4%
<b>Total</b>	<b>19</b>	<b>100.0%</b>	<b>19</b>	<b>100.0%</b>	<b>38</b>	<b>100.0%</b>
<b>Marital Status</b>						
Never Married	4	21.1%	2	10.5%	6	15.8%
Married	9	47.4%	10	52.6%	19	50.0%
Divorced, Wid.	5	26.3%	5	26.3%	10	26.3%
Separated	1	5.3%	2	10.5%	3	7.9%
<b>Total</b>	<b>19</b>	<b>100.0%</b>	<b>19</b>	<b>100.0%</b>	<b>38</b>	<b>100.0%</b>
<b>Education</b>						
Grade School	2	10.5%	1	5.3%	3	7.9%
Middle School	1	5.3%	2	10.5%	3	7.9%
High School	10	52.6%	7	36.8%	17	44.7%
College	6	31.6%	8	42.1%	14	36.8%
Postgraduate	0	0.0%	1	5.3%	1	2.6%
<b>Total</b>	<b>19</b>	<b>100.0%</b>	<b>19</b>	<b>100.0%</b>	<b>38</b>	<b>100.0%</b>
<b>Ethnicity</b>						
African Am.	2	10.5%	2	10.5%	4	10.5%
Non-Hisp. White	11	57.9%	10	52.6%	21	55.3%
Hispanic Am.	6	31.6%	7	36.8%	13	34.2%
Other	0	0.0%	0	0.0%	0	0.0%
<b>Total</b>	<b>19</b>	<b>100.0%</b>	<b>19</b>	<b>100.0%</b>	<b>38</b>	<b>100.0%</b>
<b>Annual Income</b>						
>= \$50K	0	0.0%	0	0.0%	0	0.0%
\$30K - \$49K	1	5.3%	0	0.0%	1	2.6%
\$20K - \$29K	0	0.0%	2	10.5%	2	5.3%
\$10K - \$19K	6	31.6%	7	36.8%	13	34.2%
< \$10K	12	63.2%	10	52.6%	22	57.9%
<b>Total</b>	<b>19</b>	<b>100.0%</b>	<b>19</b>	<b>100.0%</b>	<b>38</b>	<b>100.0%</b>
<b>Curr. Health Prob.</b>						
Yes	18	94.7%	17	89.5%	35	92.1%
No	1	5.3%	2	10.5%	3	7.9%
<b>Total</b>	<b>19</b>	<b>100.0%</b>	<b>19</b>	<b>100.0%</b>	<b>38</b>	<b>100.0%</b>

Table 1--Continued

Variable	Group A		Group B		Total	
	Freq.	Pct.	Freq.	Pct.	Freq.	Pct.
<b>Past Surgeries</b>						
Yes	15	79.0%	13	68.4%	28	73.7%
No	4	21.1%	6	31.6%	10	26.3%
<b>Total</b>	<b>19</b>	<b>100.0%</b>	<b>19</b>	<b>100.0%</b>	<b>38</b>	<b>100.0%</b>
<b>Employment</b>						
Full-Time	3	15.8%	4	21.1%	7	18.4%
Retired	12	63.2%	7	36.8%	19	50.0%
Part-Time	1	5.3%	4	21.1%	5	13.2%
Other	3	15.8%	4	21.1%	7	18.4%
<b>Total</b>	<b>19</b>	<b>100.0%</b>	<b>19</b>	<b>100.0%</b>	<b>38</b>	<b>100.0%</b>
<b>Fam./Soc. Support</b>						
Spouse	9	47.4%	10	52.6%	19	50.0%
Children	3	15.8%	5	26.3%	8	21.1%
Sister/Brother	4	21.1%	2	10.5%	6	15.8%
Aunt/Uncle	1	5.3%	0	0.0%	1	2.6%
Friend/Neighbor	1	5.3%	0	0.0%	1	2.6%
Other	1	5.3%	2	10.5%	3	7.9%
<b>Total</b>	<b>19</b>	<b>100.0%</b>	<b>19</b>	<b>100.0%</b>	<b>38</b>	<b>100.0%</b>

composing Group B (experimental), 10 (52.6%) completed the questionnaires the day of surgery and 9 (47.4%) completed the questionnaires the day before surgery. The age of the patients in the study varied; however, the largest age group was 60-69 years (n=12, 31.6%). The subjects predominantly were male (n=36, 94.7%), married (n=19, 50.0%), high-school graduates (n=17, 44.7%), and non-Hispanic Whites (n=21, 55.3%); had an annual income below \$10,000 (n=22, 57.9%); had current health problems (n=35, 92.1%); had a history of past surgeries (n=28, 73.7%); were unemployed/retired (n=19, 50.0%); and received family/social support from spouse (n=19, 50.0%) or children (n=8, 21.1%).

To establish homogeneity between the two groups (A and B) on

several descriptive sample characteristics, a chi-square was accomplished due to the small numbers available in each cell for these defining characteristics (see Table 2). Chi-square was used to test for differences in nominal level data. Using a level of  $p < 0.05$  as a criterion of significance, no significant differences between Group A (control) and Group B (experimental) were observed in the sample characteristics of age, gender, day of surgery, marital status, educational level, ethnicity, annual income, current health problems, past surgeries, employment status, and family/social support. Therefore, the chi-square analysis confirmed the homogeneity between the study groups (A and B).

Table 2

Chi-Square Comparison across Sample  
Characteristics between Study Groups

Variable	Chi Square	p.
Age	5.496	0.136
Gender	-	1.000
Day of Surgery	-	1.000
Marital Status	1.053	0.789
Education	2.482	0.648
Ethnicity	0.125	0.940
Annual Income	3.259	0.353
Curr. Health Prob.	0.362	0.547
Past Surgeries	0.543	0.461
Employment	3.402	0.334
Fam./Soc. Support	3.553	0.615

In addition, a t test comparison for participants' age across the two study groups was conducted (see Table 3). Using the level



Table 3

t Test Comparison of Participants' Age across Study Groups

Variable	Group A			Group B			t-Test	
	Mean	Std. Dev.	n	Mean	Std. Dev.	n	t	p
Age	60.84	12.11	19	55.42	3.19	19	1.282	0.208

of  $p < 0.05$  as a criterion of significance, no significant differences were noted. However, the mean age of Group A (control,  $n=19$ ) was 60.84 years while the mean age of Group B (experimental,  $n=19$ ) was 55.42 years. Therefore, it was noted that the control group was somewhat older than the experimental group.

State Anxiety Scale Scores

The level of state anxiety in the study subjects was measured by means of the State Anxiety Scale of the State-Trait Anxiety Inventory, Form Y (Spielberger et al., 1983). A t test comparison of preeducation and posteducation State Anxiety Scale scores was conducted across study groups (see Table 4). No significant

Table 4

t Test Comparison of Pre- and Posteducation State Anxiety Scale Scores across Study Groups

Score	Group A			Group B			t-Test	
	Mean	Std. Dev.	n	Mean	Std. Dev.	n	t	p
Pre-Education	37.79	9.41	19	37.37	11.86	19	0.121	0.904
Post-Education	34.20	10.32	18	30.89	10.88	19	0.953	0.347

Note: Differences in Post-Education frequency counts are due to non-response.

difference was found at the  $p \leq 0.05$  level. Additionally, to assess the research hypothesis, a  $t$  test comparison of study groups across preeducation and posteducation State Anxiety Scale scores was conducted (see Table 5). The results--Group A (control),  $t=1.897$ ,  $p=0.074$ ; Group B (experimental),  $t=2.976$ ,  $p=0.008$ --showed that there was a significant difference between preeducation State Anxiety Scale scores and posteducation State Anxiety Scale scores in Group B (experimental) but not in Group A (control) at the  $p \leq 0.05$  level. This confirmed the research hypothesis: Veterans undergoing elective surgery who receive preoperative teaching using the Patient Handbook on Surgery will have significantly decreased state anxiety levels compared to those who do not receive handbook instruction.

Table 5

t Test Comparison of Study Groups across Pre- and Posteducation State Anxiety Scale Scores

Sample	Pre-Education			Post-Education			t-Test	
	Mean	Variance	n	Mean	Variance	n	t	p
Group A	37.79	88.51	19	32.42	162.26	19	1.897	0.074
Group B	37.37	140.69	19	30.89	118.43	19	2.976	0.008

### Patient Evaluation Questionnaire Responses

A frequency distribution table was prepared documenting Patient Evaluation Questionnaire responses across groups and total sample (see Table 6). Frequency analysis provided the following results for the total sample:

Table 6

Patient Evaluation Questionnaire Response Frequency Analysis

<b>Item:</b> Was there anything that was particularly helpful during the preoperative period to decrease your anxiety before surgery?					
Response	Group A		Group B		Total
	Freq.	Pct.	Freq.	Pct.	Freq. Pct.
Yes	5	26.3%	8	42.1%	13 34.2%
No	14	73.7%	11	57.9%	25 65.8%
<b>Total</b>	<b>19</b>	<b>100%</b>	<b>19</b>	<b>100%</b>	<b>38 100%</b>
<b>Item:</b> Is there anything that you would have liked to have happened during the preoperative period to help decrease your anxiety before surgery?					
Response	Group A		Group B		Total
	Freq.	Pct.	Freq.	Pct.	Freq. Pct.
Yes	1	5.3%	3	15.8%	4 10.5%
No	18	94.7%	16	84.2%	34 89.5%
<b>Total</b>	<b>19</b>	<b>100%</b>	<b>19</b>	<b>100%</b>	<b>38 100%</b>
<b>Item:</b> Is there anything else you would like to comment on regarding your preoperative period?					
Response	Group A		Group B		Total
	Freq.	Pct.	Freq.	Pct.	Freq. Pct.
Yes	3	15.8%	2	10.5%	5 13.2%
No	16	84.2%	17	89.5%	33 86.8%
<b>Total</b>	<b>19</b>	<b>100%</b>	<b>19</b>	<b>100%</b>	<b>38 100%</b>

1. In response to Item 1--Was there anything that was particularly helpful during the preoperative period to decrease your anxiety before surgery?--13 respondents (34.2%) answered Yes and 25 (65.8%) answered No.

2. In response to Item 2--Is there anything that you would have liked to have happened during the preoperative period to help decrease your anxiety before surgery?--4 subjects (10.5%) replied Yes while 34 (89.5%) replied No.

3. In response to Item 3--Is there anything else you would like to comment on regarding your preoperative period?--5 persons (13.2%) said Yes and 33 (85.8%) said No.

Although the most frequent response to the items on this questionnaire was No, it is important to remember that an increase in anxiety level decreases cognitive abilities (Nyomathi & Kwashiwabara, 1988) and that the older veteran patient is not accustomed to having choices.

Patient Evaluation Questionnaire responses were next grouped into common themes. Five themes or categories emerged from the constant comparative technique: (1) administration, (2) information, (3) comfort, (4) familiarity, and (5) other (see Appendix H). Administration was defined as comments related not to the immediate surgery but rather to paperwork, admission, and other nondirect care administrative issues. Information referred to comments on the amount of information/education about the surgery provided. Comfort was defined as comforting and/or nonsurgery-specific conversations with health care workers. Familiarity referred to comments about prior knowledge/experience with some or all of the care providers. Finally, other (or miscellaneous) encompassed all comments on subjects which could not be categorized as they represented singular, unrelated comments.

A Patient Evaluation Questionnaire overall response theme frequency analysis was conducted for both groups and the total sample (see Table 7). Regarding administration, there were no positive and 4 negative responses--Group A (control), n=2 (10.0%); Group B (experimental), n=2 (10.0%). All other responses to the

Table 7

Patient Evaluation Questionnaire Overall Response Theme Frequency Analysis

Response	Group A		Group B		Total	
	Freq.	Pct.	Freq.	Pct.	Freq.	Pct.
<b>Positive</b>						
Administration	0	0.0%	0	0.0%	0	0.0%
Information	4	57.1%	3	27.3%	7	38.9%
Comfort	1	14.3%	5	45.5%	6	33.3%
Familiarity	1	14.3%	2	18.2%	3	16.7%
Other	1	14.3%	1	9.1%	2	11.1%
<b>Total</b>	<b>7</b>	<b>100%</b>	<b>11</b>	<b>100%</b>	<b>18</b>	<b>100%</b>
<b>Negative</b>						
Administration	2	100.0%	2	100.0%	4	100.0%
Information	0	0.0%	0	0.0%	0	0.0%
Comfort	0	0.0%	0	0.0%	0	0.0%
Familiarity	0	0.0%	0	0.0%	0	0.0%
Other	0	0.0%	0	0.0%	0	0.0%
<b>Total</b>	<b>2</b>	<b>100%</b>	<b>2</b>	<b>100%</b>	<b>4</b>	<b>100%</b>

questionnaire were positive. Responses related to information were most frequently reported: Groups A (control), n=4 (57.1%); Group B (experimental), n=3 (27.3%). Similarly, responses related to comfort (Group A, n=1, 14.3%; Group B, n=5, 45.5%), familiarity (Group A, n=1, 14.3%; Group B, n=2, 18.2%), and other (or miscellaneous) (Group A, n=1, 14.3%; Group B, n=1, 9.1%) were found.

Patient Evaluation Questionnaire theme analysis showed an interesting trend: For Group A (control), favorable comments about anxiety reduction dealt more with information whereas, for Group B (experimental), favorable comments about anxiety reduction referred mostly to comfort. Noteworthy is the fact that all

negative comments were about administrative issues, e.g., delays in admission, lost paperwork, and lost lab test results.

A chi-square comparison across Patient Evaluation Questionnaire responses between study groups was conducted. However, due to the large number of cells (2x5) and the small sample size, statistical significance at the  $p \leq 0.05$  level of significance did not result (see Table 8).

Table 8

Chi-Square Comparison across Patient  
Evaluation Questionnaire Responses  
between Study Groups

Theme .	Chi Square	p.
Positive	2.371	0.499
Negative	-	1.000

### Secondary Analysis

Secondary analysis was conducted to evaluate the effect of day before surgery versus day of surgery preeducation STAI State Anxiety Scale scores. Using a  $t$  test, statistically significant differences did not exist between preeducation State Anxiety Scale scores based on the day of the preeducation--day before surgery or day of surgery (see Table 9). When the research hypothesis was evaluated separating those who were tested the day before surgery and those who were tested the day of surgery, an interesting effect was found. If the preeducation assessment was completed

Table 9

t Test Comparison of Preeducation State Anxiety Scale Scores by Study Group across Day of Assessment

Day of Test	Day Before Surgery			Day of Surgery			t-Test	
	Mean	Std. Dev.	n	Mean	Std. Dev.	n	t	p
Group A	35.78	8.77	9	39.60	10.05	10	-0.879	0.391
Group B	36.89	10.05	9	37.80	13.82	10	-0.163	0.873

the day before surgery, then the preoperative education did not significantly reduce state anxiety in Group B (experimental) but it did in Group A (control). Conversely, if the preeducation assessment was completed the day of surgery, then the preoperative education significantly reduced state anxiety in Group B (experimental) but not in Group A (control) (see Table 10).

Table 10

t Test Comparison of Study Groups within Day of Preeducation Assessment across Pre- and Posteducation State Anxiety Scale Scores

Day of Test	Pre-Education			Post-Education			t-Test	
	Mean	Variance	n	Mean	Variance	n	t	p
<b>Day Before Surgery</b>								
Group A	35.79	79.94	9	30.78	104.69	9	3.511	0.008
Group B	36.89	101.11	9	32.67	173.50	9	1.417	0.194
<b>Day of Surgery</b>								
Group A	39.60	100.93	10	33.90	226.32	10	1.063	0.316
Group B	37.80	191.07	10	29.30	76.68	10	2.699	0.024

## CHAPTER 5

### DISCUSSION

This chapter discusses the findings and conclusions of the study, the implications for nursing, and the limitations of the study and recommendations for further research.

#### Findings and Conclusions

The research hypothesis was supported by the findings of this study. The hypothesis formulated for the study was: Veterans undergoing elective surgery who receive preoperative teaching using the Patient Handbook on Surgery will have significantly decreased state anxiety levels compared to those who do not receive handbook instruction. This study also revealed an unexpected finding: that patients who received preoperative teaching on the day of surgery had a greater decrease in anxiety level than those who received preoperative teaching the day before surgery (refer to tables 5, 9, and 10). According to Lindeman (1988), the timing of preoperative patient teaching and the effectiveness of teaching strategies have been a focus of nursing research for the past 20 years. However, few studies have included same-day surgery patients in their research design. Research results reported by Young et al. (1994) and mirrored in this study indicate that further study is needed regarding the delivery of preoperative care, especially preoperative



instruction, to morning admission surgery patients.

### **Implications for Nursing**

With the increasing number of older veteran admissions, the decreased length of hospital stays, and the increased hospital competition for insured patients, nurses are faced with an even greater challenge of ensuring that patient education meets the needs of those entrusted to their care. Hospital professional staff are currently aware of the importance of patient education as a means of facilitating earlier discharges, and the results of this study indicate that it may be better to provide that education as near the time of surgery as possible. This is an important factor to consider because reduction of anxiety prior to surgery contributes to comfort of the patient, speed of recovery from surgery, and early discharge, all elements of cost-effective management of a health care institution.

According to Wasson and Anderson (1994), interorganizational linkages, such as the mergers and reorganization of the VA system, will extend the patient educator's role beyond the traditional boundaries of the VA health care setting. One means of doing this might be the development and dissemination of written material such as the Patient Handbook for Surgery. In this study, this booklet was not only used as a format for instruction but was also given to the patients to keep for reinforcement and future reference. The older veteran population may have repeated need for surgical procedures, and repeated recourse to the information

provided by the handbook may, through familiarization with its contents, assist in allaying anxiety about surgical procedures and improve overall ability to cope with such incidents, thus improving the health status of the older veteran population and assisting the nursing staff in the provision of patient education.

Nurses are significantly changing the methods of patient education with the current use of various instructional materials, such as videos, computer-assisted instruction modules, television, easy-to-understand patient education handbooks, and one-to-one visits with patients. A study conducted by Kanto, Laine, Vuorisalo, and Salonen (1990) found that preoperative visits by a nurse anesthetist had positive benefits for patients postoperatively. In one hospital, the traditional preoperative visit by an anesthetist has been replaced by a personal visit carried out by a trained nurse. This is an example of an area where an increased number of clinical nurse specialists or advanced practice nurses, as defined by the ANA's (1976) Scope of Nursing Practice, will be needed to design appropriate content and produce effective products. The development of the Patient Handbook on Surgery by the nursing staff of the Postanesthesia Care Unit of ALMH is another such example.

### **Limitations and Recommendations**

Because the sample in this study was one of geographic convenience and the sample size was relatively small, the findings are important only to the Audie L. Murphy Hospital, where the

Patient Handbook on Surgery was developed. Findings should not be generalized to other hospital populations. Although the finding of similar sample characteristics across both groups (control and experimental) was desired as one way to limit extraneous influences that might have altered study outcomes, a comparison study using younger, educated, employed males and more females might reflect different findings and should be conducted.

More patients are now coming for admission late the night before surgery or early the morning of surgery, creating a time restriction for preoperative education. Due to this constraint imposed on the PACU nurses and the principal investigator, less time was available in which to enroll participants in the study and administer the three questionnaires. Further, the time frame in which the study was conducted, which included the merging of ALMH with another VA hospital and reorganization of the local VA hospital system, the Thanksgiving holidays, and the government shutdown of 1995, caused a data-collection slowdown that led to fewer subjects being enrolled in the study. A replication of this study in a more auspicious time frame might produce more definitive results. Further, anxiety which might have been produced by these factors could be minimized if a shorter span of time was needed for data collection.

A possible study limitation concerned the nearly all-male sample group, which was predictable considering the nature of the veteran population. A great many more males than females have

served in the United States Armed Forces and seek the services of the VA hospitals. A comparison study using a similar group of female veterans would add additional information to the study findings. Further, the fact that all the nurses involved in this study were highly skilled and trained PACU registered nurses may have influenced the outcome of the study. A replication study conducted by surgical floor staff nurses is recommended for comparison purposes.

A factor to consider for future research is the short time interval between the pre- and the posteducation administration of the STAI State Anxiety Scale for this study. A longer time interval between administrations of the State Anxiety Scale might produce different findings.

This study dealt only with patients undergoing elective surgery. It is important to learn if the results of this study would differ when using patients requiring more severe, necessary surgical procedures. A future study should undertake further testing of the patient education handbook utilizing such a sample.

This investigator also recommends conducting this study in the veteran population using a larger sample to provide greater power to the statistical tests which were undertaken. With more data, chi-square analysis could be conducted on frequency distributions to see if statistical significance would result. Additional subjects would also strengthen the validity of the results and decrease the chance of sampling error.

Finally, it is important to further investigate the trend indicated by study results that the timing of patient education is an important factor in the reduction of preoperative anxiety. The indication that patient education is more effective in reducing preoperative anxiety when it is provided close to the time of the surgical procedure is contrary to prevalent belief about such timing. This trend noted in the study should be carefully investigated and substantiated or disproven to advance the knowledge deposit regarding the provision of such education.

In summary, the research findings demonstrated the value of preoperative patient education using a handbook as part of preoperative nursing interventions that aim to decrease anxiety and increase patient knowledge in a veteran population. The purpose of this study was to aid in the establishment of the validity of the Patient Handbook on Surgery as a first step toward increased and widespread use of the booklet in the Audie L. Murphy Hospital. This first step has been successfully accomplished with the results of this study. Though the sample utilized was relatively small, t test results were obtained. Therefore, the specific use of the State Anxiety Scale of the State-Trait Inventory, Form Y (Spielberger et al., 1983), in this study adds to the body of knowledge which has been growing without input regarding the veteran perioperative population.

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**APPENDIX A**  
**INTERDISCIPLINARY PATIENT/FAMILY TEACHING**  
**FLOW SHEET FOR SURGICAL INTERVENTION**

Department of Veterans Affairs

## MEDICAL RECORD

## INTERDISCIPLINARY PATIENT/FAMILY TEACHING FLOW SHEET FOR SAME DAY SURGERY

<b>Educational Assessment:</b>	Date:	Signature:
Primary Language <input type="checkbox"/> English <input type="checkbox"/> Spanish <input type="checkbox"/> Other	Religious Preference:	
Culture <input type="checkbox"/> American Indian <input type="checkbox"/> Asian <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input type="checkbox"/> White		
What are Patient's Learning Goals?		
Other		
How Does the Patient Like to Learn? <input type="checkbox"/> Listening <input type="checkbox"/> Reading <input type="checkbox"/> Audio/Visual <input type="checkbox"/> Computer Assisted Instruction		

	Date/Initials				
Patient/Significant Other (SO)					
Readiness to Learn	HA-Highly Anxious	MA-Moderate Anxiety	A-Accepting	D-Denying	
Ability to Learn	A-Alert	UP-Unable to Participate			
Vision Status	G-Good	GWA-Good w/Aid/glasses	PWA-Poor w/Aid/glasses	P-Poor	
Reading Ability	G-Good	HP-Has Problems			
Hearing Status	G-Good	GWA-Good w/Aid	PWA-Poor w/Aid	P-Poor	
Manual Dexterity	A-Able to Do	L-Limited	NA-Not Able to Do		
Mobility	A-Able to Do	L-Limited	NA-Not Able to Do		

Existing Knowledge of:					
Problem	C-Comprehensive	G-Good	B-Basic	L-Limited	N-None
Prevention	C-Comprehensive	G-Good	B-Basic	L-Limited	N-None
Medication	C-Comprehensive	G-Good	B-Basic	L-Limited	N-None
Screening R/T Age/Risk	C-Comprehensive	G-Good	B-Basic	L-Limited	N-None
Nutrition/Weight Control	C-Comprehensive	G-Good	B-Basic	L-Limited	N-None
Stress Management	C-Comprehensive	G-Good	B-Basic	L-Limited	N-None
Exercise Program	C-Comprehensive	G-Good	B-Basic	L-Limited	N-None
Importance of Social Support	C-Comprehensive	G-Good	B-Basic	L-Limited	N-None

## Medications

Name	Allergy	Purpose	Dose	When	Route	Side Effect Adv. React.	Drug Interaction(s)	Other	Date/Time	P/ISO	Instr./Eval.	Instr. Init.
1. Tylenol 2 tabs PO q4h PRN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
2.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
3.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
4.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
5.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
6.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
7.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
8.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				

## Interdisciplinary Treatment: Team Signatures

Signature/Title	Initials	Signature/Title	Initials
RN		MSW	
MD		Other	
R.Ph.		Other	
Other		Other	

Patient Information

INTERDISCIPLINARY PATIENT/FAMILY TEACHING FLOW SHEET

MEDICAL RECORD

OP 118-25-02 May 19, 1993  
 Replaces OP 118-24-10, December 2, 1991

Instruction					Teaching				
Code					Assessment				
(Inst.)					Code:				
V - Verbal Instruction					(Eval.)				
W - Written Instruction					5. Excellent understanding				
Topic of Instruction	Date Time	Pt SO	Inst/Eval Code	Init.	Topic of Instruction	Date Time	Pt SO	Inst/Eval Code	Init.
<b>Medical Advance Directives</b>					<b>OR Suite</b>				
Patient Rights/Responsibilities					Skin preparation in OR				
<b>Disease Process</b>					Holding area wait				
Anatomy/Physiology					Transfer to OR bed				
Risk Factors/Causes					Safety Strap				
Prevention					<input type="checkbox"/> EKGs <input type="checkbox"/> BP cuff				
Duration of Disease/Prognosis					<input type="checkbox"/> OR temp <input type="checkbox"/> Lights				
Treat Options/Surg. Intervention					<input type="checkbox"/> OR dress <input type="checkbox"/> Sounds				
					<input type="checkbox"/> Grounding electrode				
<b>Informed Consent</b>					<b>Same Day Surgery Postop Care</b>				
<input type="checkbox"/> Lab Tests <input type="checkbox"/> EKG <input type="checkbox"/> X-Ray					Stretcher transport to SDS suite				
Other					<input type="checkbox"/> Vital signs <input type="checkbox"/> Pulse oximetry (1 hr.)				
					Begin PO intake (clear liquids)				
					<input type="checkbox"/> Discontinue IV line and fluids				
Anesthesia alternatives					<input type="checkbox"/> Void				
Risks discussed					<input type="checkbox"/> Length of stay				
Holding area line insertion/wait					<input type="checkbox"/> Change to own clothes				
<input type="checkbox"/> IVs <input type="checkbox"/> Arterial <input type="checkbox"/> CVCs									
Anesthesia induction					<b>Pain/Anxiety Scale 0-10</b>				
					Pain/Anxiety control options				
<b>Same Day Surgery Home Preparation</b>					Postop medications				
Telephone Call from RN					Music Therapy <input type="checkbox"/> Reading <input type="checkbox"/>				
Shower at Bedtime with Soap <input type="checkbox"/> wash hair <input type="checkbox"/> face					Positioning				
Shower in Morning with Soap <input type="checkbox"/> wash hair <input type="checkbox"/> face					Spitting				
No alcohol 12 hours before surgery					Relaxation Techniques				
NPO after midnight before surgery					Express Feelings				
Go to bed early for 8 hours sleep					<b>Discharge Instructions</b>				
Driver required post surgery? <input type="checkbox"/> Yes <input type="checkbox"/> No					Dressing/incision management				
Assistance with home care required? <input type="checkbox"/> Yes <input type="checkbox"/> No					Safe/effective use of equipment				
Take meds with small sips H2O only					Activity restriction/progression				
					Diet				
<b>Same Day Surgery Unit Orientation</b>					<b>When to Call MD/Hospital</b>				
Check in Station 1 or 6 in Admissions					Phone #s/questions/emergencies				
Admit to SDS suite					Vision/neurological signs				
Change to hospital gown <input type="checkbox"/> Void <input type="checkbox"/>					Pain				
Vital signs <input type="checkbox"/> Pulse oximetry <input type="checkbox"/>					Bloody/purulent drainage				
AccuCheck <input type="checkbox"/> IV line and fluids <input type="checkbox"/>					Fever over 101°F				
Preop meds <input type="checkbox"/>					Redness				
Stretcher transport to OR <input type="checkbox"/>					Swelling				
Visitors waiting room <input type="checkbox"/>					Heat				
					Return to clinic/triage				
<b>Social Worker by Referral</b>									
					<b>Follow-up Appointments</b>				
<b>Pastoral Care</b>					Next AM <input type="checkbox"/> Yes <input type="checkbox"/> No				

The above instructions have been given to me. I have had the opportunity to ask questions, and all of my questions have been answered to my satisfaction. I have been provided with educational information on my disease process.

**APPENDIX B**  
**AUTHORIZATION FOR PROTOCOL**



64  
The University of Texas  
Health Science Center at San Antonio  
7703 Floyd Curl Drive  
San Antonio, Texas 78284-7830

Institutional Review Board  
(Multiple Assurance #1403)

(210) 567-2351  
FAX: (210) 567-2360

October 23, 1995

Garletta Steen, R.N.  
Nursing Service  
South Texas Veterans Health Care System  
Audie L. Murphy Division

Re: IRB Protocol # **E-956-017**      **Assessment of Preoperative Patient Education Strategies (AMVAH)**

Dear Ms. Steen:

Reference your request, dated September 11, 1995.

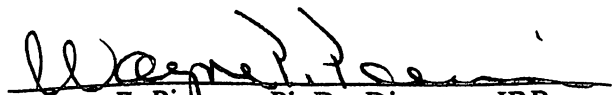
**This protocol has been determined EXEMPT under DHHS Regulation 46.101(b)(1):** Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as (i) research on regular and special education instructional strategies, or (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.

**RESPONSIBILITIES OF PRINCIPAL INVESTIGATOR:**

- (1) submit for review and approval by the IRB all modifications to the protocol or consent form(s) prior to the implementation of the change;
- (2) for funded projects, submit a copy of renewals/continuations and advise whether the study of specimens, records, or human subjects has changed from the original submission; and
- (3) submit a **Status Report** for continuing review by the IRB. A form will be sent to you annually to verify the status of the activity.

**Source of Funding:**            none

**NEXT IRB REVIEW:** OCTOBER 1996

  
Wayne P. Pierson, Ph.D., Director, IRB



**Department of  
Veterans Affairs**

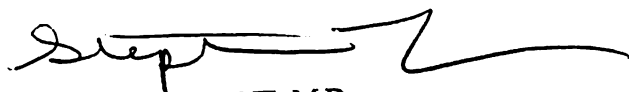
**Memorandum**

65

Date: October 27, 1995  
From: Chairman, Research and Development Committee (151)  
Subj: Review of Research Proposal  
To: Garletta Steen, B.S.N.

Proposal: "Assessment of Preoperative Patient Education Strategies", (Human Studies)

1. The above proposal was approved by the Research and Development Committee on October 26, 1995.
2. Any changes in proposals or investigators must be reported to the Research and Development Committee. Changes in studies involving human subjects must also be reported to the Institutional Review Board (IRB).



STEPHANIE LEVINE, M.D.

MEMORANDUM

66

TO: Dr. Gary Norgan and Garletta Steen

FROM: Dr. Bob Connelly, Chair of IRB *BC*

RE: Research Proposal: The effectiveness of a preoperative patient education handbook in decreasing anxiety of veterans undergoing elective surgery

DATE: October 26, 1995

---

The Institutional Review Board of Incarnate Word College categorizes this proposal as EXEMPT.

Audie L. Murphy  
Memorial Veterans  
Hospital

7400 Merton Minter  
Boulevard  
San Antonio, TX 78284



In Reply Refer To:

September 26, 1995

Nursing Research

Research Review Board

**RE: Letter of Support for Nursing Research**

This letter is written to verify support of nursing research to study "The Effectiveness of a Preoperative Patient Education Handbook in Decreasing Anxiety of Veterans Undergoing Elective Surgery." The principle investigator is Garletta Steen, RNC, an eleven year VA employee who is completing the requirements for the degree of Master of Science in Nursing from Incarnate Word College. Preoperative teaching is an integral component of the care surgical patients receive and studies have indicated that structured and comprehensive teaching will result in decreased anxiety, better informed patients and fewer post operative complications.

The PACU nurses will be trained to administer the self-evaluation questionnaires to veterans undergoing elective surgery before and after preoperative patient education is given using the Patient/Family Flow Sheet for Surgical Intervention to the Control group, and using the Patient Education Handbook for Surgery with the experimental groups. The evaluation questionnaires (State - Anxiety, Demographic Sheet and Three Items Self-Evaluation Tool) will be administered on the day before surgery. by the PACU nurses after informed consent to participate in the study has been signed by the patient.

Hospitals have recognized for many years that patient education is important to health care consumers and fundamental to health promotion behaviors. As length of hospital stay decreases, nurses must use effective strategies to ensure patients are properly informed about their surgery and convalescence that has resulted in growing use of printed health information. I fully support this nursing Research Proposal.

BEVERLEY A. FREEMAN  
Chief, Nursing Service

CC:-  
Pat Haney, NM, OR  
Julie Gimesky, ANM, PACU



**Veterans  
Administration**

# Memorandum

Date October 27, 1995  
 From Richard R. Ritter M. D.  
 Chief, Anesthesiology  
 Subject Nursing Research  
 To Research Review Board

RE: Letter of Support for Nursing Research

This letter is written to verify support of nursing research to study "The Effectiveness of a Preoperative Patient Education Handbook In Decreasing Anxiety of Veterans Undergoing Elective Surgery." The principle investigator is Garletta Steen RN,C., an eleven year V.A. employee who is completing the requirements for the degree of Master of Science in nursing from Incarnate Word College. Preoperative teaching is an integral component of the care surgical patients receive and studies have indicated that structured and comprehensive teaching will result in decreased anxiety, better informed patients and fewer post operative complications.

The Institutional Review Boards of The University of Texas Health Science Center at San Antonio, South Texas Veterans Health Care System - Audie L. Murphy Division and Incarnate Word College have all approved the protocol for this study. Data collection is expected to be completed during a four - six week period. Patients undergoing elective surgery will be asked to take part in the study beginning in November 1995. Patients undergoing major surgery will not be asked to take part in the study.

The PACU nurses will be trained to administer the self evaluation questionnaires to veterans undergoing elective surgery before and after preoperative patient education is given using the Patient /Family Flow Sheet for Surgical Intervention to the Control group, and using the Patient Education Handbook for Surgery with the experimental groups. The evaluation questionnaires (State - Anxiety, Demographic Sheet and Three Items Self - Evaluation Tools ) will be administered on the day before surgery by the PACU Nurses after informed Consent to participate in the study has been signed by the patient.

Hospitals have recognized for many years that patient education is important to health care Consumers and fundamental to health promotion behaviors. As length of hospital stay decreases, nurses must use effective strategies to ensure patients are properly informed about their surgery and convalescence that has resulted in growing use of printed health information. I fully support this nursing Research Proposal .

Richard R. Ritter, M.D.  
 Chief, Anesthesiology

cc:  
 Research Review Board, ALM  
 Pat Haney, NM, OR  
 Julie Gimesky, ANM, PACU

**APPENDIX C**  
**CONSENT FORM WITH COVER LETTER**

Dear Veteran:

I am a candidate for a Master's Degree in Nursing at Incarnate Word College, San Antonio, Texas. I am conducting a study at this hospital as part of my thesis requirement for the graduate nursing program.

Patients undergoing surgical procedures have special needs. One of the needs identified in several research studies is the need to control anxiety when facing a surgical procedure. It is known that all patients undergoing surgery have some degree of anxiety, but it is not known if the use of a patient handbook for preoperative education will have an effect on anxiety in veterans undergoing elective surgery. I am looking at the relationship between preoperative patient education and anxiety.

You are being asked to participate in a study to help determine the effectiveness of preoperative patient education. If you agree to participate in this study, I will give you two questionnaires about how you think and feel and a personal information sheet to fill out. It will take about 30 minutes to complete these forms.

You will not be identified in the study. Your identity will remain unknown, and all responses and information will be kept totally private and confidential. Also, if this study is published, you will not be identified.

Your participation is voluntary. Your response will not affect the care you receive. You can withdraw from the study at anytime. You give your consent to participate in the study by signing the attached consent form. You will be given a copy of this letter and your signed consent form if you agree to participate. If you have questions, I can be reached at (210) 617-2670.

Thank you for your participation.

Garletta Steen, R.N., B.S.N.  
M.S.N. Candidate  
School of Nursing  
Incarnate Word College

Subject Name: \_\_\_\_\_ Date \_\_\_\_\_ 71

Title of Study: Assessment of Preoperative Patient Education StrategiesPrincipal Investigator: Garletta Steen, R.N.C., B.S.N. VAMC: San Antonio, TX**DESCRIPTION OF RESEARCH BY INVESTIGATOR**

We are asking you to take part in a study to assess preoperative patient education strategies for surgical patients. We hope to identify preoperative educational needs of veterans and assist nurses to understand how to better meet those needs in the future.

We cannot and do not guarantee that you will benefit if you take part in this study.

We will ask you to fill out three questionnaires. The first questionnaire, a self-evaluation survey regarding how you feel at the moment, will be administered on two separate occasions. We will ask you to fill out this questionnaire before preoperative teaching is started and again after preoperative teaching, prior to your surgical procedure. This questionnaire will take about 10 minutes to complete on each occasion. We will also ask you to fill out a demographic data sheet at the time when you first answer the self-evaluation questionnaire regarding how you feel at the moment. It should take you no longer than 5 minutes to fill out the demographic data sheet. After your surgery, we will ask you to answer an evaluation survey regarding the benefit/nonbenefit of the preoperative patient teaching you received. This survey should take no longer than 5 minutes.

There are no risks to you for taking part in this study. You do not have to answer any questions you do not want to. You will be identified by a study number only. Your individual answers will be kept confidential and be reported only as a part of the whole group of patients involved in this study.

There may be no direct benefit to you for taking part in this study. However, the results of the study will be used to help nurses to identify preoperative educational needs of veterans and assist nurses to understand how to better meet those needs in the future.

There is no cost to you for taking part in this study, and you will not be paid for taking part in the study. As a veteran, your only cost for treatment as a subject in a research study at the Veterans Affairs hospital will be the co-payment which may be

SUBJECT'S IDENTIFICATION (I.D. plate or give name-last, first, middle)

\_\_\_\_\_  
Signature of Subject

Subject Name: \_\_\_\_\_ Date \_\_\_\_\_

Title of Study: Assessment of Preoperative Patient Education Strategies 72Principal Investigator: Garletta Steen, R.N.C., B.S.N. VAMC: San Antonio, TX

required based on your category of eligibility for medical care. We (the facility and the investigator) will receive no benefit monetarily or in kind from this research project.

Your decision to take part in this study is voluntary. You are free to choose not to take part in the study or to stop the study at any time. If you choose not to take part or to stop at any time, it will not affect your future medical care at South Texas Veterans Healthcare System-Audie L. Murphy Division.

If you have any questions now, feel free to ask us. If you have additional questions later or wish to report a problem which may be related to this study, Garletta Steen, R.N.C., B.S.N. (graduate student, Incarnate Word College) can be reached at 617-5300, ext. 5503.

The University of Texas Health Science Center committee that reviews research on human subjects (Institutional Review Board) (567-2351) will answer any questions about your rights as a research subject, or you may call Dr. Bob Connelly, Chairman of the Incarnate Word College Institutional Review Board at 829-3882.

You will be given a copy of this signed form to keep.

Your signature indicates that you have decided to take part in this research study and that you have read and understand the information given above and explained to you.

Date \_\_\_\_\_

Time \_\_\_\_\_

Signature of Subject \_\_\_\_\_

Signature of Witness \_\_\_\_\_

Signature of Investigator \_\_\_\_\_





**APPENDIX D**  
**DEMOGRAPHIC DATA SHEET**

## DEMOGRAPHIC DATA SHEET

Name \_\_\_\_\_ Telephone \_\_\_\_\_  
Scheduled surgery \_\_\_\_\_ Age \_\_\_\_\_  
Preoperative teaching \_\_\_\_\_ Group \_\_\_\_\_  
Day before surgery \_\_\_\_\_ Day of surgery \_\_\_\_\_

WE ARE REQUESTING PERSONAL INFORMATION FROM YOU FOR USE IN OUR RESEARCH STUDY. ALL REPLIES WILL BE KEPT CONFIDENTIAL. PLEASE PLACE A CHECK MARK ( ) NEXT TO THE CORRECT RESPONSE OR SUPPLY THE ANSWER WHICH BEST DESCRIBES YOUR SITUATION FOR EACH QUESTION.

1. Gender: \_\_\_\_\_ a. Male \_\_\_\_\_ b. Female

2. Marital status:

- \_\_\_\_\_ a. Never married  
\_\_\_\_\_ b. Married, living with significant other  
\_\_\_\_\_ c. Divorced, widowed  
\_\_\_\_\_ d. Separated

3. Educational level (Circle grade completed):

- \_\_\_\_\_ a. Grade school: 1 2 3 4 5  
\_\_\_\_\_ b. Middle school: 6 7 8  
\_\_\_\_\_ c. High school: 9 10 11 12  
\_\_\_\_\_ d. College: 13 14 15 16  
\_\_\_\_\_ e. Postgraduate study

4. Ethnic origin:

- \_\_\_\_\_ a. African American  
\_\_\_\_\_ b. Non-Hispanic White  
\_\_\_\_\_ c. Hispanic American  
\_\_\_\_\_ d. Other (Please specify): \_\_\_\_\_

5. Income per year:

- \_\_\_\_\_ a. Above \$50,000  
\_\_\_\_\_ b. \$30,000-\$49,999  
\_\_\_\_\_ c. \$20,000-\$29,999  
\_\_\_\_\_ d. \$10,000-\$19,999  
\_\_\_\_\_ e. Below \$10,000

6. Current health problems (Please name):

---

---

---

7. Past surgeries (Please name):

---

---

---

8. Employment:

- ☐ a. Full-time worker  
☐ b. Retired  
☐ c. Part-time worker  
☐ d. Other (Please specify): \_\_\_\_\_

9. Family/social support resources:

- ☐ a. Spouse  
☐ b. Children  
☐ c. Sister(s) and/or brother(s)  
☐ d. Aunt(s), uncle(s), niece(s), and/or nephew(s)  
☐ e. Friend(s) and/or neighbor(s)  
☐ f. Other (Please specify): \_\_\_\_\_  
\_\_\_\_\_

APPENDIX E

PERMISSION FOR USE AND STATE ANXIETY SCALE OF  
THE STATE-TRAIT ANXIETY INVENTORY (FORM Y)

# State-Trait Anxiety Inventory for Adults

## Self-Evaluation Questionnaire

STAI Form Y-1 and Form Y-2

Permission to reproduce up to 200 copies for  
one year starting from date of purchase  
August 24, 1995

Developed by Charles D. Spielberger

in collaboration with R.L. Gorsuch, R. Lushene, P.R. Vagg, and G.A. Jacobs

Published by MIND GARDEN

P.O. Box 60669 Palo Alto California 94306 (415) 424-8493

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## SELF-EVALUATION QUESTIONNAIRE

STAI Form Y-1

Please provide the following information:

78

Name \_\_\_\_\_ Date \_\_\_\_\_ S \_\_\_\_\_

Age \_\_\_\_\_ Gender (Circle) M F T \_\_\_\_\_

## DIRECTIONS:

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

NOT AT ALL  
SOMEWHAT  
MODERATELY SO  
VERY MUCH SO

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

# State-Trait Anxiety Inventory for Adults Scoring Key (Form Y-1, Y-2) 79

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

To use this stencil, fold this sheet in half and line up with the appropriate test side, either Form Y-1 or Form Y-2. Simply total the scoring weights shown on the stencil for each response category. For example, for question # 1, if the respondent marked 3, then the weight would be 2. Refer to the manual for appropriate normative data.

MODERATELY MUCH SO  
SOMEWHAT  
NOT AT ALL

## Form Y-1

1.	4	3	2	1
2.	4	3	2	1
3.	1	2	3	4
4.	1	2	3	4
5.	4	3	2	1
6.	1	2	3	4
7.	1	2	3	4
8.	4	3	2	1
9.	1	2	3	4
10.	4	3	2	1
11.	4	3	2	1
12.	1	2	3	4
13.	1	2	3	4
14.	1	2	3	4
15.	4	3	2	1
16.	4	3	2	1
17.	1	2	3	4
18.	1	2	3	4
19.	4	3	2	1
20.	4	3	2	1

ALMOST ALWAYS  
OFTEN  
SOMETIMES  
ALMOST NEVER

## Form Y-2

21.	4	3	2	1
22.	1	2	3	4
23.	4	3	2	1
24.	1	2	3	4
25.	1	2	3	4
26.	4	3	2	1
27.	4	3	2	1
28.	1	2	3	4
29.	1	2	3	4
30.	4	3	2	1
31.	1	2	3	4
32.	1	2	3	4
33.	4	3	2	1
34.	4	3	2	1
35.	1	2	3	4
36.	4	3	2	1
37.	1	2	3	4
38.	1	2	3	4
39.	4	3	2	1
40.	1	2	3	4

**APPENDIX F**  
**PATIENT EVALUATION QUESTIONNAIRE**



## PATIENT EVALUATION QUESTIONNAIRE

PLEASE PLACE A CHECK MARK ( ) NEXT TO THE CORRECT RESPONSE OR  
SUPPLY THE ANSWER THAT BEST DESCRIBES YOUR SITUATION FOR EACH  
QUESTION.

1. Was there anything that was particularly helpful during the  
preoperative period to decrease your anxiety before surgery?

\_\_\_\_\_ a. Yes

\_\_\_\_\_ b. No

If Yes, please specify: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

2. Is there anything that you would have liked to have happened  
during the preoperative period to help decrease your anxiety  
before surgery?

\_\_\_\_\_ a. Yes

\_\_\_\_\_ b. No

If Yes, please specify: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

3. Is there anything else you would like to comment on regarding  
your preoperative period? Please specify:

\_\_\_\_\_

\_\_\_\_\_

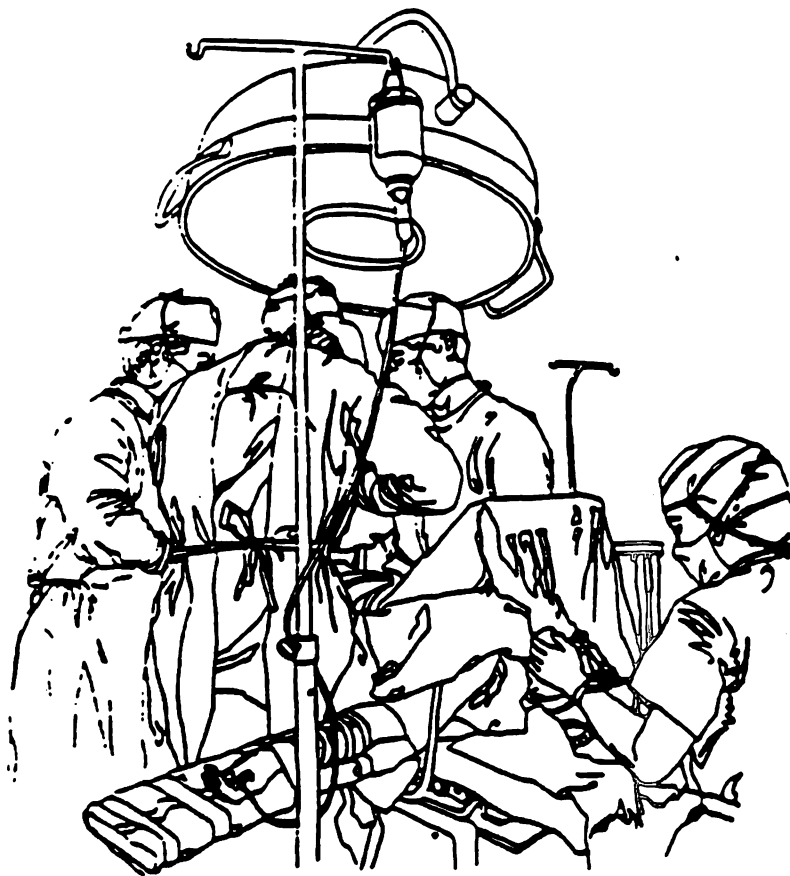
\_\_\_\_\_

**APPENDIX G**

**PATIENT HANDBOOK ON SURGERY**

# PATIENT HANDBOOK ON SURGERY

83



.....

This book belongs to: \_\_\_\_\_

My Doctor is: \_\_\_\_\_ My Nurse is: \_\_\_\_\_

## **WRITTEN AND COORDINATED BY:**

*Diane T. Cortez, BSN, RN  
Staff Nurse,  
Post-Anesthesia Care Unit*

*Gretchen Belanger, RN  
Staff Nurse,  
Post-Anesthesia Care Unit*

*Julie Gimesky, BSN, RNC  
Assistant Manager,  
Post-Anesthesia Care Unit*

## **IN COLLABORATION WITH**

*Linda Lewis, RN; Chairperson*

*Thelma Shank, RN; Co-chairperson*

*Nursing/Patient/Family Education Committee*

*Anita Eggert, RN*

*Donna McEwen, RN*

*Jesse Yantis, RN*

## **ACKNOWLEDGEMENTS**

*Richard Rittter, M.D.*

*Chief Anesthesiology Service*

*Audie L. Murphy Memorial Veterans Hospital*

*Wade Rogers, M.D.*

*Chief, Surgical Service*

*Audie L. Murphy Memorial Veterans Hospital*

*Ms Vel Espinoza*

*Visual Information Specialist*

*Medical Media Production Service*

*Audie L. Murphy Memorial Veterans Hospital*

*Ms Teresa Mejia*

*Administrative Assistant*

*Operating Room/Post-Anesthesia Care Unit*

*Audie L. Murphy Memorial Veterans Hospital*

# ***INTRODUCTION***

This book will tell you about:

- having surgery
- what will happen to you while you are  
in the hospital
- things to do and what to expect before  
and after surgery

You will have questions.  
Ask your doctor or nurse for the answers.

Write any questions here: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## ***WHY YOU NEED SURGERY***

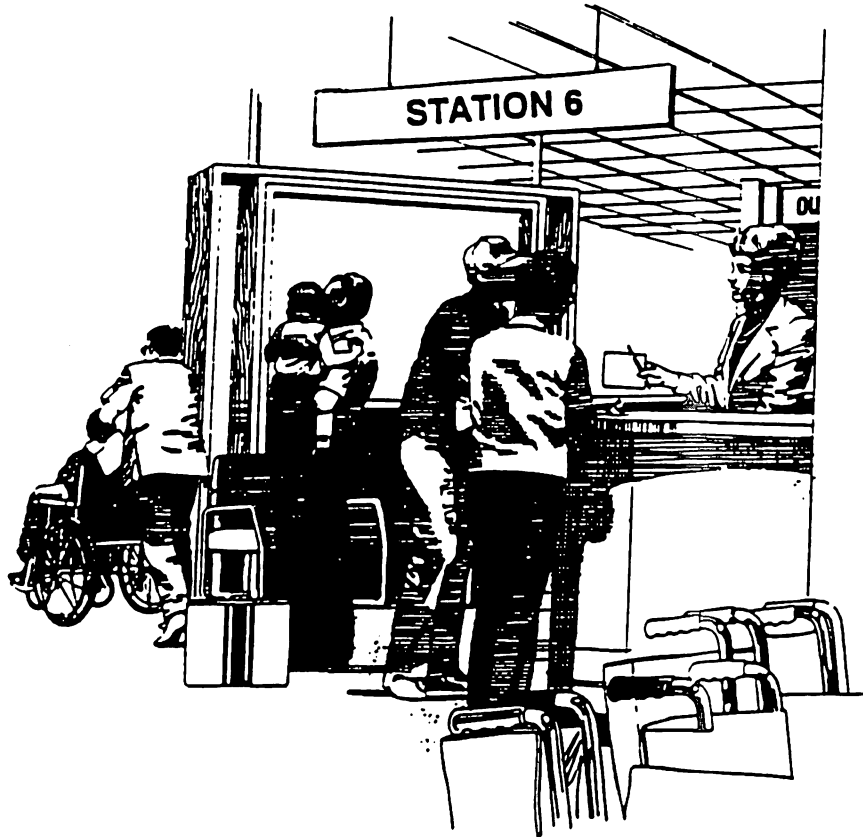
Surgery may be needed when any part of your body is not doing its job, or does not belong there. You and your doctor have talked about surgery to:

Fix your \_\_\_\_\_

Put in a new \_\_\_\_\_

Take out your \_\_\_\_\_

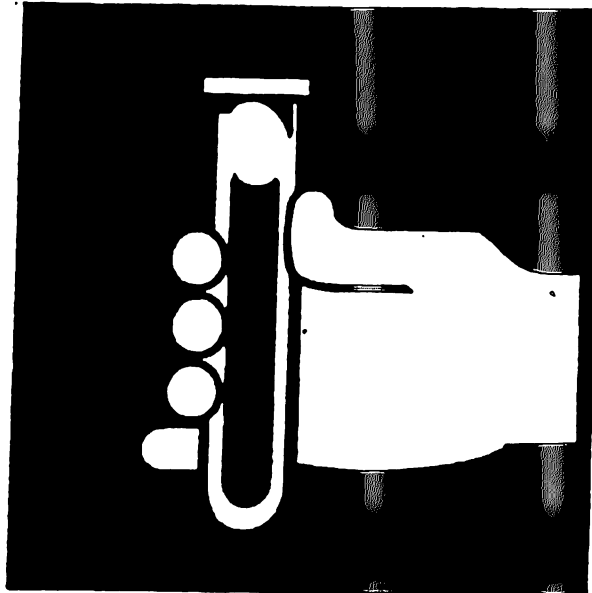
***IF YOU ARE COMING FROM HOME...  
GO TO TRIAGE***



- Go to Station 6
- See the Admitting Clerk

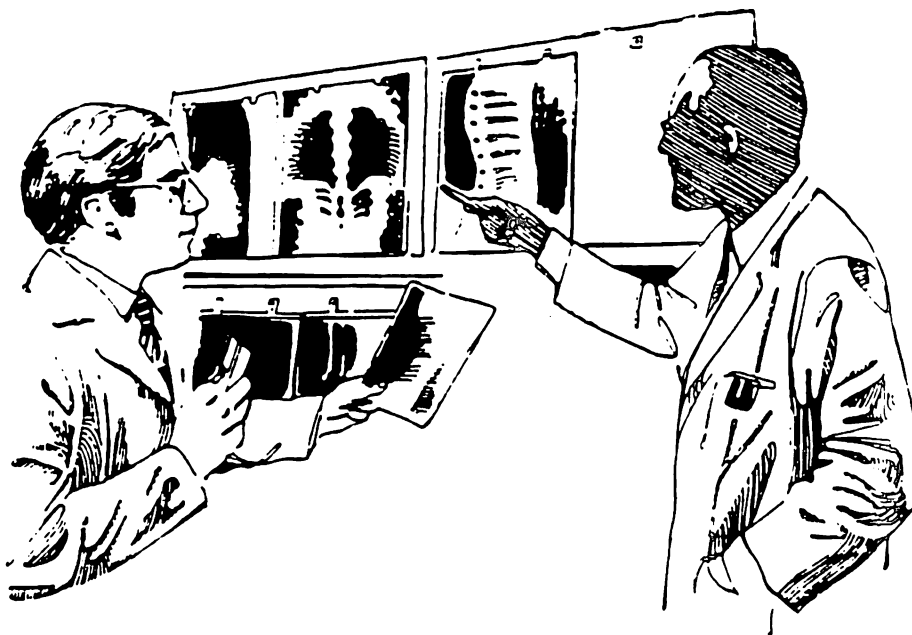
***THE CLERK WILL SEND YOU TO YOUR NURSING UNIT  
OR YOU MAY HAVE TO GO TO THESE AREAS FIRST:***

- **LABORATORY (Room R121):**
  - You will have blood drawn here.
  - You will be asked to give a urine sample in a cup





■ **X-RAY (RADIOLOGY Room H-102):**



- Here you will have a picture (x-ray) of your chest taken.
- After your x-ray you will go back to Station 6. The clerk will send you to your Nursing Unit.

## ***YOUR NURSING UNIT***

On your nursing unit you will meet your nurse.

- The nurse will ask about your:
  - past surgeries
  - past illnesses
  - allergies
  - medications
  - personal care
  - religion, beliefs, and lifestyles



- The nurse will also:
  - weigh you
  - take your blood pressure, temperature, heart and breathing rates

**THE NURSE WILL TALK TO YOU AND YOUR  
FAMILY/SIGNIFICANT OTHER ABOUT:**

- the call button to call the nurse from your bed
- the call button in the bathroom if you need help
- how to move the bed up and down
- how to turn on the TV/radio
- where the telephones are
- visiting hours
- hospital smoking rules

Write down anything important you want the  
nurse to know: \_\_\_\_\_

---

---

---

---

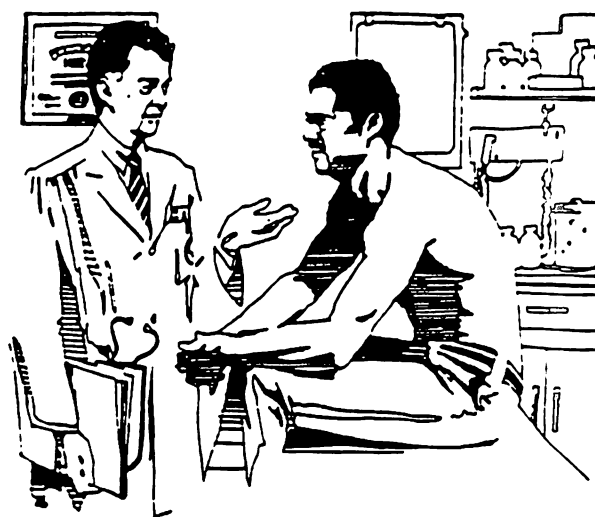
**IF YOU DO NOT UNDERSTAND SOMETHING  
THE NURSE TELLS YOU....ASK QUESTIONS!**

## ***BEFORE THE SURGERY***

The day before your surgery the doctor will visit you.  
The doctor:

- talk about the surgery
- answer any questions about the surgery
- ask you to sign a surgery permit  
(Informed Consent)

*Signing the consent form means you  
understand what the doctor has explained  
about the surgery*



**IF YOU DO NOT UNDERSTAND  
SOMETHING, ASK FOR MORE  
INFORMATION BEFORE YOU SIGN  
THE PERMIT.**

The anesthetist will keep you comfortable during the surgery. The anesthetist will give you:

- medicines
- oxygen
- other anesthesia drugs

Your anesthesia will depend on your health and on your surgery

You and the anesthetist will talk about:

- past illnesses and surgeries
- the different kinds of anesthesia
- the type of IV's (intravenous catheters) that will be used

Ask your anesthetist any questions you have!

## ***TYPES OF ANESTHESIA***

### **■ GENERAL**

YOU WILL:

- get a special medicine in your IV to make you go to sleep
- have a tube placed in your windpipe after you are asleep
- breathe special gases to keep you asleep



## ■ SPINAL

YOU WILL:

- be awake
- get medicine in your IV, which will help you relax
- get medicine into your back. The medicine will make you numb from your waist to your toes
- not feel any pain or be able to move your legs

### ***REMEMBER!***

***THE NUMBNESS LASTS FOR THE TIME  
YOU ARE HAVING SURGERY AND A WHILE  
AFTER. YOU WILL BE ABLE TO MOVE  
YOUR LEGS AFTER THE MEDICINE WEARS OFF.***

## ■ LOCAL

YOU WILL:

- have medicine injected into the part of your body having surgery. The medicine will make that part numb. You will not feel any pain.
- be awake

### ***REMEMBER!***

**YOU WILL GET THE KIND OF ANESTHESIA  
THAT IS BEST FOR YOU, YOUR GENERAL  
HEALTH, AND THE KIND OF SURGERY  
YOU ARE HAVING.**



## ***THE NIGHT BEFORE SURGERY***

- Visit with your family/significant other and friends
- Send your wallet, money, rings, and watch home with your family/significant other
- Shower with a special soap the nurse will give you
- The anesthetist may order medicine to help you relax
- DO NOT eat or drink anything after midnight

## ***THE DAY OF SURGERY***

- Visit with your family/significant other before going to surgery
- Ask the nurse to call "Personal Effects" to take care of any valuables your family/significant other did not take home
- GO TO THE BATHROOM AND EMPTY your bladder
- TAKE OFF ALL your clothing
- Put on the short hospital gown the nurse will give you
- TAKE THE MEDICINE the nurse will give you  
It will help you relax.
- STAY IN BED - the medicine may make you feel sleepy

- GO BY STRETCHER with someone from the operating room to the holding area on the second floor



- Your family/significant other should wait in the Dayroom on the floor where you are a patient.
- If you go to the Intensive Care Unit (ICU), your family/significant other will wait in the ICU waiting room on the 4th floor.

## ***THE HOLDING AREA***

- **YOU WILL WAIT** for your surgery in a very busy place. We call this place "the holding area."
- **YOU WILL SEE:**
  - other patients on stretchers waiting for their surgery
  - members of your health care team wearing scrub clothes, surgery hats, and face masks
- **YOU WILL MEET** the operating room nurse who will look at your chart and ask you questions.



## ***THE OPERATING ROOM***

The anesthetist will take you to the operating room.

- **YOU WILL BE MOVED** to a special table.  
There are seatbelt-type straps on the surgery table to place across your legs.
- **YOU MAY FEEL COOL.** The nurse will bring you a blanket.
- **YOU WILL SEE:**
  - bright lights
  - many machines and equipment
  - doctors and nurses in scrub clothes, surgery hats and masks.



■ YOU WILL HEAR:

- monitor beeps
- equipment and instrument noises
- people talking
- paper rustling
- other background noises

- You will go to sleep OR your body part having surgery will be numb.
- You will be given medicine in the IV to help you relax.

**THE SURGERY WILL START AFTER  
THE ANESTHETIST GIVES  
YOU THE ANESTHESIA**

## ***POST ANESTHESIA CARE UNIT***

### ***(Recovery Room)***

- **AFTER SURGERY** you will be taken to the "recovery room"
  - you may be sleepy
  - you may have a plastic mask for oxygen over your face
  - the nurse will check your blood pressure, heart rate and breathing
  - the nurse will check your bandage
  - ask the nurse for pain medicine if you need it
  - you will be asked to take deep breaths and cough
  - you will stay in the "recovery room" for one hour or longer

## ***COUGHING AND DEEP-BREATHING EXERCISES***

- Take a slow, deep breath through your nose
- Form your lips like you are getting ready to whistle
- Blow the breath out for a count of 10
- Take another deep breath, then cough it out

**DO THESE EXERCISES  
EVERY TWO (2) HOURS  
WHILE YOU ARE AWAKE**



## ***USING THE INCENTIVE SPIROMETER***

The incentive spirometer is a clear plastic box with a ball inside. There is a hose coming off the side of the box. This is the hose you will breathe through.

Using the Incentive spirometer will help you breathe better.

- Take a deep breath
- Blow all the air out of your lungs
- Blow it out slowly
- Place your lips around the mouthpiece of the hose
- Breathe in as much air as you can through the tube, the ball in the spirometer will rise
- Try to hold the ball up for 3 to 5 seconds
- Take your mouth off the tube and blow the breath out

**Lift the ball  
in the spirometer  
5 to 10 times in a row**

## ***GOING HOME***

- The doctor will decide when you are ready to go home.
  - He will tell you what your activity level will be.
- The nurses on the unit will give you written information about going home.

### **MAKE SURE YOU UNDERSTAND THE INFORMATION THE DOCTOR/NURSE TELLS YOU ABOUT:**

- diet
- do's and don'ts after surgery
- medications
- bandages
- bathing/showering
- pain - what to expect and what to do
- care of your incision
- signs of infection and/or bleeding

***IF YOU HAVE QUESTIONS/PROBLEMS AFTER YOU GO HOME, CALL ONE OF THE FOLLOWING NUMBERS:***

Here are the phone numbers you may need:

***Audie L. Murphy Memorial Veterans Hospital  
Surgery Clinic***



AREA CODE: 210  
PHONE NUMBER: 617-5300  
EXTENSION: 4888



You can call this number:  
Monday through Friday (except Federal Holidays)  
8:00 a.m. to 4:30 p.m.

***Audie L. Murphy Memorial Veterans Hospital  
Triage Evaluation Unit***



AREA CODE: 210  
PHONE NUMBER: 617-5300  
EXTENSION: 5940



You can call this number:  
Evenings, weekends and holidays

IT IS IMPORTANT TO RETURN TO YOUR CLINIC APPOINTMENTS

FIRST FOLLOW-UP APPOINTMENT IS:

DATE: \_\_\_\_\_

TIME: \_\_\_\_\_

CLINIC: \_\_\_\_\_

**APPENDIX H**  
**COMMON THEMES OF PATIENT EVALUATION**  
**QUESTIONNAIRE RESPONSES**

## COMMON THEMES OF PATIENT EVALUATION RESPONSES

### INFORMATION:

- \* Liked nurse talking to me and learning from Book.
- \* Everyone explained what was going to happen.
- \* Liked talking about surgery to get ready for it.
- \* They let you know what was going to happen and why.
- \* Talking to anesthesia and nurses that helped me.
- \* Nurses talking about surgery and getting the book helped.

### COMFORT:

- \* Enjoyed the nurse coming by talking and giving me a surgery book.
- \* Just talking to the nurses gets patient's mind off the surgery.
- \* Nurses know how to comfort you and it was nice to meet them.
- \* Reassurance by nurse things would be OK.
- \* Having people around and somebody to talk to and have questions answered.

### FAMILIARITY:

- \* Dr. Sandoval(anesthesia) did my other surgery.
- \* I liked the nurses and they are nice.
- \* Successes of past surgery and satisfaction with results.

### ADMINISTRATION:

- \* Last surgery I was not told the spinal would make legs unable to move.
- \* Today I had a difficult time getting my lab test and X-ray the wait was to long.
- \* Surgery time changes are very upsetting.
- \* Procedures need to go faster - waiting is to long when you are uncomfortable.

## VITA

Garletta White Steen is the daughter of Garland White (deceased) and Rosie Lee Walker. The candidate was born in San Antonio, Texas, on October 20, 1946. She attended St. Philips College and became a licensed vocational nurse in 1974. She received an Associate Degree in Nursing from San Antonio College in 1981 and a Bachelor of Science in Nursing degree from Incarnate Word College in 1986. The candidate was married to Archie L. Steen on January 25, 1963, and has three children: LeFay Arlene, Carla Renee, and Angela Denise. Each was born in a different country since their father was a soldier in the U.S. Army. Twenty years of traveling as a military wife took the candidate to Europe, Mexico, Central America, and all across the United States. She is a member of three professional organizations: Sigma Theta Tau International, Inc.; Chi Eta Phi Sorority, Inc.; and American Nephrology Nurses Association. Honors include Outstanding Woman of the Year 1994, San Antonio Express newspaper, as Homemaker; 1995 Image Maker (Nursing) Award from Sigma Theta Tau International, Inc.; and membership in the Incarnate Word College Honor Society. Graduate education was funded in part by Audie L. Murphy Veterans Affairs Hospital, where the candidate has worked for the past 12 years in the Surgical Intensive Care Unit, the Hemodialysis Unit, and the Post Anesthesia Care Unit. The candidate holds many certifications; however, she is most proud of her community service project involvements, providing service to humanity through local schools, churches, and health care organizations.

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This thesis was typed by Barbara A. Jones.