

VISITATION IN THE INTENSIVE CARE UNIT: SATISFACTION
WITH LIMITED AND UNLIMITED VISITING HOURS
AND ANXIETY LEVELS OF PATIENTS' WIVES

A THESIS
SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF MASTER OF SCIENCE
IN THE GRADUATE SCHOOL OF THE
TEXAS WOMAN'S UNIVERSITY

COLLEGE OF NURSING

BY
CAROLE A. ORLEN, BS, RN

DENTON, TEXAS

MAY 1993

TEXAS WOMAN'S UNIVERSITY
DENTON, TEXAS

April 2, 1993
Date

To the Associate Vice-President for Research
and Dean of the Graduate School:

I am submitting herewith a thesis written by _____

Carole A. Orlen, BS, RN

entitled "Visitation in the Intensive Care Unit:

Satisfaction with Limited and Unlimited Visiting Hours and

Anxiety Levels of Patients' Wives"

I have examined the final copy of this thesis for form
and content and recommend that it be accepted in partial
fulfillment of the requirements for the degree of Master
of Science, with a major in Nursing.

Rose Mesivady
Major Professor

We have read this thesis and
recommend its acceptance:

William F. Arnold

Oneda M. Hughes

Accepted:

Leslie M. Thompson

Associate Vice-President
for Research and Dean of
the Graduate School

Copyright © Carole A. Orlen, 1993
All rights reserved

DEDICATION

This thesis is lovingly dedicated to my family. To my brother, Michael, and my sisters, Victoria and Georgeanne, who helped me keep a sense of humor and let me know there was a shoulder to lean on whenever I needed it. Most of all this is dedicated to my one and only Mother, who always helped and encouraged me. Mom, when things were the roughest you always cheered and inspired me to do my very best. Thanks for all the joy you have brought into my life. I will love you all, always.

Carole

ACKNOWLEDGMENTS

I would like to express my sincere appreciation to the following:

To the United States Navy Nurse Corps for allowing me the opportunity to fulfill my dream of a master's degree in nursing.

To the members of my committee, Dr. Oneida Hughes and Dr. Wilda Arnold for their time and support during my thesis project, but most of all to Dr. Rose "Mom" Nieswiadomy for her unending devotion to her students and the expertise she lends to the science of nursing.

To my friend, Charly, for making me smile through it all, as well as Marion Smalley, my typist, who kept me on time.

And last, but not least, to the subjects who unselfishly participated in this study during a severe time of crisis in their lives. Thank you.

VISITATION IN THE INTENSIVE CARE UNIT: SATISFACTION WITH
LIMITED AND UNLIMITED VISITING HOURS AND ANXIETY
LEVELS OF PATIENTS' WIVES

ABSTRACT

CAROLE A. ORLEN, BS, RN

TEXAS WOMAN'S UNIVERSITY
COLLEGE OF NURSING

MAY 1993

This quasi-experimental study compared the anxiety levels of wives of ICU patients who were allowed unlimited visitation with their husbands and those who were allowed four daily visits. Additionally, the study examined the wives' satisfaction with visiting hours and the correlation between satisfaction with visiting hours and anxiety levels. Spielberger, Gorsuch, Lushene, Vagg, and Jacobs' (1966, 1972c, 1983) theory of anxiety guided the study.

A convenience sample of 53 subjects (28 in the control group and 25 in the experimental group) were administered a demographic data questionnaire and the STAI Form-Y (Spielberger et al., 1983). Wives who were allowed unlimited visitation with their spouses had (a) significantly lower anxiety levels than wives whose visitation was limited ($p = .02$) and (b) greater satisfaction with visiting hours ($p = .002$). No

significant correlation was found between satisfaction with visiting hours and subjects' state anxiety levels.

TABLE OF CONTENTS

	Page
DEDICATION	iv
ACKNOWLEDGMENTS	v
ABSTRACT	vi
LIST OF TABLES	x
Chapter	
I. INTRODUCTION	1
Statement of the Problem	2
Justification of the Problem	3
Theoretical Framework	5
Assumptions	8
Hypotheses	9
Definition of Terms	10
Limitations	12
Summary	13
II. REVIEW OF LITERATURE	14
Responses of Family Members of Critically Ill Patients	14
Needs of Family Members of Critically Ill Patients	18
Visiting Practices in Intensive Care Units	26
The Role of the Nurse in Interacting with Family Members of Critically Ill Patients	33
Summary	39
III. PROCEDURE FOR COLLECTION AND TREATMENT OF DATA	41
Setting	42
Population and Sample	43
Protection of Human Subjects	44

	Page
Instruments	46
Data Collection	49
Treatment of Data	50
IV. ANALYSIS OF DATA	52
Description of the Sample	53
Findings	56
Summary of Findings	60
V. SUMMARY OF THE STUDY	62
Summary	63
Discussion of Findings	66
Conclusions	70
Implications	70
Recommendations for Further Studies	71
REFERENCES	72
APPENDICES	
A. Human Subjects Review Committee Approval	77
B. Agency Permission Form	80
C. Graduate School Permission to Conduct Study	82
D. Explanation of Study, Time 1 and 2	84
E. Demographic Data Questionnaire	89
F. Spielberger State-Trait Anxiety Inventory	91

LIST OF TABLES

Table	Page
1. Demographic Data of the Sample	55
2. Means and Standard Deviations for the State-Trait Anxiety Scores and Satisfaction with Visiting Hours	58
3. Anxiety of Experimental and Control Groups at 48 Hours, Controlling for Anxiety at 12 Hours and Trait Anxiety	59

CHAPTER I

INTRODUCTION

Patients in intensive care units (ICUs) are surviving much longer today due to the medical technology available. According to Cray (1989), the challenge for nurses working in critical care areas has been to know about and to apply physiologic and advanced technologic treatment and to interpret clinical data for their patients. However, the author also stated that the greater challenge is to balance the physiologic needs of the patient with the emotional, educational, and spiritual needs of the entire family.

According to Breu and Dracup (1978b), the spouses of critical care patients may experience intense emotions related to the possible death of their mates. These authors identified other losses that may be experienced by the spouses: deprivation of their primary source of contact and major source of gratification, an interruption of their daily routine, drastic reversal of roles, loss of provider and financial stability, and relocation to an unfamiliar environment.

According to King and Gregor (cited in Chartier & Coutu-Wakulczyk, 1989), nursing research has identified

that the family members of patients who are critically ill demonstrate signs of emotional and physical stress. The spouses have very specific needs, one of which has been identified as the need to relieve initial anxiety (Hampe, 1975). This anxiety can result from the unfamiliarity with the specialized equipment and the unfamiliar environment of the intensive care unit.

Spouses of patients admitted to intensive care units are usually situated in a nearby family waiting area. Here they anxiously wait for the time until they are permitted to visit their mates. A rigid visiting schedule is usually enforced. This schedule, in most cases, conflicts with the needs of spouses to be near their husbands or wives during their critical illness (Stillwell, 1984). This study focused on the influence of visitation hours on the anxiety levels of spouses whose husbands were patients in an ICU.

Statement of the Problem

The problem of this study was to compare the anxiety levels of wives of ICU patients between those who were allowed unlimited visitation of their spouses from 7 A.M. to 11 P.M. and wives who were allowed to visit their spouses only four times daily for 15 minutes each time. Additionally, the study examined wives' level of satisfaction with visiting hours and the correlation

between wives' satisfaction with visiting hours and their anxiety levels.

Justification of the Problem

Hospitalization of a family member for a serious illness often causes a great deal of distress and anguish for the relatives. "A crisis may result, even within the most secure and tightly interwoven family group" (Woolley, 1990, p. 1402). Gardner and Stewart (1978) verified that the family members of ICU patients feel helpless and powerless in their ability to influence the recovery of their loved ones. Molter (1979) stated that interventions with critically ill patients need to include the family members and their perceived needs. "One of the most significant aspects of nursing is the interacting with the family, because the family forms the critical intervening variable between society and the individual" (O'Neill-Norris & Grove, 1986, p. 194). The literature indicates there is a lack of staff involvement with families (Gardner & Stewart, 1978).

Chartier and Coutu-Wakulczyk (1989) related, "when a member of a family becomes ill, certain needs emerge and family members experience a rise in their anxiety levels. This is even more pronounced when hospitalization takes place in an intensive care unit" (p. 11). Admission and

confinement to the ICU creates anxiety for the spouse as well as the patient. Because of the patient's uncertain physiological status, the spouse's needs are often ignored or dealt with superficially in quick consultations held in hospital corridors (Breu & Dracup, 1978a).

Bozett and Gibbons (1983) stated that family members discover and recognize that they play a significant role in the eventual recovery of the patient and that relatives with low anxiety levels may provide valuable psychological support as well as be able to assist with physical care of the patient. Family members should be viewed as valuable contributors in patient care, rather than a hindrance.

Zetterlund (1971) conducted a study in two coronary care units that had a written policy which stated that one family member could visit with the patient for 5 minutes every hour. Evaluation of the results of this study revealed that patients in the coronary care unit desire longer periods of time to renew and clarify relationships with their family and discuss family concerns. Most patients and family members agreed that one policy should not apply to all patients; the determination of visiting privileges should be guided by each patient's condition.

Little research has been done to study the visiting needs of families who have a relative hospitalized in an

intensive care unit, but more specifically the visiting needs of the spouse. A lack of flexibility in visiting regulations not only has been stressful for family members, but has been identified as a source of anxiety for patients as well (Heater, 1985). Therefore, determining the effects of restricted visitation policies on the spouse of a patient in the intensive care unit has implications for improvement in the quality of care received by both the patient and the spouse during this time of crisis.

Theoretical Framework

This study was based on Spielberger, Gorsuch, Lushene, Vagg, and Jacobs' (1966, 1972c, 1983) theory of anxiety.

According to Spielberger et al., anxiety is:

a central explanatory concept in almost all contemporary theories of personality, and it is regarded as a principal causative agent for such diverse behavioral consequences as insomnia, immoral and sinful acts, instances of creative self-expression, debilitating psychological and psychosomatic symptoms, and idiosyncratic mannerisms of endless variety. (p. 4)

Spielberger (1972a), made a distinction between anxiety, stress, and threat.

Stress is related to environmental conditions that constitute an exterior stimulation which in turn may trigger anxiety. Whereas a threat is determined by an individual's perceptions of the external stimulation, it is in the subjective interpretation of a given situation that a threat can induce anxiety. (p. 31)

Spielberger (1972b) indicated that anxiety, as a process, refers to a sequence of cognitive, affective, and behavioral responses that occur in response to stress. This author also asserted that this sequence of responses may be initiated by a stressful external stimulus or an internal cue that is perceived as threatening or dangerous.

According to Spielberger (1972a), some nonstressful situations may be appraised as threatening to some individuals who perceive them as hazardous. This author also proposed that the appraisal of a situation as dangerous or threatening will be determined by an individual's differences in aptitudes, skills, and personality dispositions and also by his or her previous personal experience with a similar situation.

Spielberger et al. (1983), described two types of anxiety based on the work of Cattell and Scheier. These two types of anxiety are labeled state and trait.

"State anxiety (A-state) is conceptualized as a transitory emotional state or condition of the human organism that is characterized by subjective, consciously perceived feelings of tension and apprehension, and heightened autonomic nervous system activity" (p. 3). Spielberger et al. contended that A-State intensity should

be low in nonstressful situations in which existing danger is not perceived as threatening.

Trait anxiety (A-Trait) refers to the relatively stable differences in individuals' anxiety proneness. People have a tendency to have elevations in A-State intensity in response to perceived threatening situations (Spielberger et al., 1983). Persons who are high in A-Trait tend to perceive a larger number of situations as dangerous or threatening than persons who are low in A-Trait, and these individuals also respond to threatening situations with greater intensity (Spielberger, 1972a).

According to Spielberger (1972a) the principle assumptions of trait-state anxiety theory may be summarized as:

1. In situations that are appraised by individuals as threatening, an A-State reaction will occur. Through feedback mechanisms, via sensory and cognitive paths, high A-State reactions will be experienced as unpleasant.

2. The intensity of an A-State reaction will be influenced by the amount of threat that a particular situation poses.

3. The duration of an A-State reaction will depend upon the persistence of the individual's interpretation of the situation as threatening.

4. Individuals who have high A-Trait will perceive situations that involve failure or threats to self-esteem as more threatening than will persons who have low A-Trait.

5. Elevations in A-State have stimulus properties which may be expressed directly in behavior, or they may serve to initiate psychological defenses that have been effective in the past to reduce A-State.

6. Stressful situations which are encountered frequently may cause an individual to develop psychological defense mechanisms or specific coping responses to reduce or minimize the A-State.

This study was conducted to determine if visitation policies influence the anxiety levels of the patients' spouses. It was proposed that unlimited visitation with the patient would decrease the spouses' perceptions of the hospitalization as a threatening situation. Therefore, anxiety levels would be lower for spouses allowed unlimited visitation than for spouses who were only allowed to visit four times daily.

Assumptions

The assumptions relevant to this study were:

1. Hospitalization of a spouse represents an anxiety-producing situation.

2. Anxiety levels of the subjects will influence their interactions with their hospitalized spouses.

3. The subjects' responses are reflective of their true feelings.

4. The subjects can understand and follow the directions for the State-Trait Anxiety Inventory.

Hypotheses

The hypotheses for this study were as follows:

1. When controlling for trait anxiety and state anxiety, at 12 hours following hospitalization of the spouse, state anxiety at 48 hours is lower for those wives who are allowed unlimited visitation with their spouses in the ICU in comparison to the wives who are limited in visitation rights of their spouses to four times daily.

2. There is a greater sense of satisfaction with visiting hours by those wives who are allowed unlimited visitation with their spouses in the ICU in comparison to the wives who are limited in visitation of their spouses to four times daily.

3. There is a negative correlation between satisfaction with visiting hours and the state anxiety levels of the wives of patients in the ICU.

Definition of Terms

For the purposes of this study, the following terms were defined:

1. State anxiety--a transitory emotional state or condition that varies in intensity and fluctuates over time and is characterized by subjective, consciously perceived feelings of apprehension and tension (Spielberger, 1972a). This type of anxiety was measured utilizing the subjects' responses to the State Anxiety Inventory Scale (A-State).

(a) 12 hours following hospitalization--the A-State scale was administered initially to the subjects within 12 hours of their spouses' hospitalization.

(b) 48 hours following hospitalization--the A-State scale was readministered to the subjects approximately 48 hours after the first administration of the first A-State scale.

2. Trait anxiety--individual differences in anxiety proneness, which is the difference in the disposition to perceive a wide range of stimulus situations as dangerous or threatening (Spielberger, 1972a). This type of anxiety was measured by the subjects' responses to the Trait Anxiety Inventory Scale (A-Trait). This tool was administered at the same time as the first A-State tool was administered.

3. Spouses--male patients married to the study subjects.

4. Wives--women married to the male patients in the two study ICUs. The wife will be pointed out to the researcher by the staff and verify her marital status by responding to the term, "Mrs. . . ." and/or by indicating on the demographic sheet that she lives with the male patient.

5. Visitation policy--the regulations of the two study units that involve the amount of time that there can be interaction between wives and their spouses.

a. Unlimited visitation--wives were allowed unlimited visitation between 7 A.M. and 11 P.M.

b. Visitation four times daily--wives were allowed to visit from 9 to 9:15 A.M., 1 to 1:15 P.M., 5 to 5:15 P.M., and 8 to 8:15 P.M.

5. Intensive Care Unit (ICU)--a specialized area in an acute care setting with highly technical equipment and specialized personnel for the purpose of continuing surveillance and treatment of patients with an acute illness. In this study one cardiovascular intensive care unit (CVICU) and one coronary care unit (CCU) were used.

Limitations

The limitations of this study were identified as:

1. Subjects' reactions may have been influenced by prior experiences with hospitalization of their spouses or other family members.
2. The nature of the subjects' interpersonal relationships with their spouses prior to hospitalization might have influenced their responses to the spouses' hospitalization.
3. Due to economic or social variables, the subjects may not have been able to visit their spouses as frequently as desired, even when unlimited visitation was permitted.
4. Anxiety-related events may have been taking place concurrently with the hospitalization of the spouse.
5. The use of a convenience sample limited the generalizability of the findings.
6. Data for the two groups were collected at two separate time periods.
7. The physical set-up of the two study units was different. The CVICU has four private rooms and a six-bed open area. The CCU has six private rooms.
8. Patients in the CVICU are more likely to have more technological support equipment than the patients in the CCU (e.g., ventilator, Swan-Ganz, arterial lines, etc).

Summary

Hospitalization has been recognized as a stressful event for patients as well as family members, especially if the patient is admitted to a special care area. For many reasons, such as threat of loss of the patient's life, the disruption of family routine, or entry into a foreign environment, hospitalization places a great deal of stress on a family.

During the time a family member is hospitalized, certain needs emerge in the family members which if unmet can cause a rise in their anxiety levels. Because family members play a significant part in the recovery of the patient, attention should be given to the needs of family members.

The problem of the study was to examine the relationship that exists between visitation rights and anxiety levels of wives whose spouses are in an ICU. The theoretical framework utilized was Spielberger et al.'s (1983) theory of anxiety. The hypotheses proposed relationships among (a) visitation rights, (b) satisfaction with visiting rights, and (c) anxiety levels of the wives of patients in the ICU.

CHAPTER II

REVIEW OF THE LITERATURE

When a family member is suddenly hospitalized, the other members experience anxiety and stress related to the possible outcomes. A review of the literature will be presented on the responses of family members of critically ill patients, the needs of family members of critically ill patients, visiting practices in intensive care units (ICUs), and the role of the nurse in interacting with the family members of critically ill patients.

Responses of Family Members of Critically Ill Patients

A critical illness is a catastrophic event that may upset the equilibrium of the family unit. When an individual is admitted to a coronary care unit, the threat to the patient's life and survival brings about a threat to the structure and survival of the family (Zetterlund, 1971).

According to Halm (1990), at the onset of a critical illness family members may be immobilized by feelings of fear, shock, and disbelief. This author also contended that the family may be unprepared to deal with the anxiety

and tension created by the stressful and threatening illness event. Some common sources of anxiety include (a) the sudden and unexpected onset of illness; (b) an uncertain prognosis; (c) fear that the patient will experience intense or prolonged pain, residual disability, or death; (d) lack of privacy; and (e) a critical care environment that is foreign (Bozett & Gibbons, 1983; Gardner & Stewart, 1978).

In a university hospital in Canada, a study was done to identify the needs and situational anxiety level of immediate family members of ICU patients as well as seeing what sociodemographic factors have an influence on the needs and anxiety levels of family members. Chartier and Coutu-Wakulczyk (1989) confirmed that anxiety is experienced by the family when a member is in the ICU and that a significant relationship exists between family members' needs and their anxiety levels. Situational anxiety, as measured by Spielberger et al.'s (1983) STAI instrument, was found to be significantly influenced by family needs when age and sex were taken into account. Women in the study presented a higher level of anxiety than the men. Their mean anxiety level was 49.6 in comparison to the men's mean anxiety level of 42.9. The level of anxiety decreased with age.

In a study done by Artinian (1989), some concerns identified by family members of patients hospitalized for coronary artery bypass graft surgery were: insensitivity of the hospital staff, disrupted family life, financial strain, family member distress, and lack of intrafamily support. This author further related that the stress of surgery may impair a spouse's ability to relate effectively to the patient and have negative effects upon the spouse's health.

Titler, Cohen, and Craft (1991) completed a study whose purpose was to describe the effects of adult critical care hospitalization on the family unit and family members, as perceived by patients, spouses, children, and nurses. Six major themes were identified: (a) family members did not communicate their feelings to each other; (b) parents attempted to shield children in the family from anxiety-provoking information; (c) spouses, children, and even patients perceived an overriding threat of vulnerability, uncertainty, intense emotions, and physical illness; (d) disruption of home routines was seen most frequently in interviews with children and spouses; (e) the hospitalization of a family member was seen as a growth experience by some members, and to others the period intensified family conflict; and (f) many spouses felt

frustration while trying to balance many roles such as spouse, parent, employee, and support person for other family members.

Caplin and Sexton (1988) conducted a study with spouses of patients hospitalized in a coronary care unit (CCU) with a diagnosis of myocardial infarction. Phase I of the study consisted of structured interviews with spouses to determine the stresses they encountered. In Phase II, spouses and CCU nurses were asked to rank the stresses identified in Phase I, through the use of Q-sort cards. Some of the stresses identified by spouses were "dealing with husband's/wife's reaction to the idea of having a heart attack" and "trying not to upset or worry the husband/wife." Spouses ranked "being asked to wait to visit when calling in on the intercom" as well as "not being informed of a change in the spouse's condition" as highly stressful. Several problems involving the spouses' emotional state were identified as highly stressful in this study. These included, "being lonely," "having difficulty concentrating," and "not being able to sleep" (Caplin & Sexton, 1988).

Breu and Dracup (1978b) identified deprivation of social contacts, interruption of daily routines, forced autonomy, role reversal, and loss of provider and financial

stability as sources of possible stress to the spouse and other family members of the critically ill patient. When a family member enters the critical care area, other family members can expect to face more than one stressor.

When a family member is confronted with the prospect of a loved one being hospitalized in an ICU, the element of trust is paramount between the family and the caregivers. Families need the assurance that the critical care nurse can be relied on to provide competent nursing care (Washington, 1990).

Needs of Family Members of Critically Ill Patients

There are a number of studies concerning the perceived needs of family members of critically ill patients. Hampe (1975) examined the needs of grieving spouses in the hospital setting, and others (Bouman, 1984; Daley, 1984; Molter, 1979; Stillwell, 1984) have examined the needs of family members with loved ones in the intensive care unit. Three of these studies found that the need most often expressed by family members was the desire to be with their loved ones.

Molter (1979) used a descriptive study to identify the needs of the relatives of critically ill patients. The number of patients and diagnoses were not identified by

this author. The relatives were interviewed after the patient was transferred to a general unit. This study concluded that relatives of critically ill patients were able to identify their needs during the intensive care phase of the hospitalization. The 10 most important needs were identified as:

1. To feel hope.
2. To feel that hospital personnel care about the patient.
3. To have waiting room nearby.
4. To be called at home with changes.
5. To know the prognosis.
6. To have questions answered honestly.
7. To know the facts about progress.
8. To receive information once a day.
9. To receive understandable explanations.
10. To see patient frequently.

The majority of these needs were met by the nursing staff, according to the subjects. However, such a response could have been influenced by the fact that the interviewer identified herself as a nurse.

Leske (1986) completed a study similar to Molter's (1979) study. Leske's study involved 20 male and 35 female family members of 20 critically ill patients. The

instrument utilized was the one designed by Molter (1979). The order of the need statements was determined by use of a table of random numbers. The patients in the Leske study were injured during a traumatic or violent event. The relatives were interviewed while the patient was in the ICU or in the emergency room. There was no statistically significant difference found in the 10 most important needs identified by the families in the Leske (1986) and Molter (1979) studies.

Hampe (1975) examined the needs of grieving spouses of terminally ill patients. The study was an attempt to see if family members could identify their own needs and if they perceived that these needs were being met. The spouses identified eight needs:

1. Need to be with the dying person
2. Need to be helpful to the dying person
3. Need for assurance of the comfort of the dying person
4. Need to be informed of mate's condition
5. Need to be informed of impending death
6. Need to ventilate emotions
7. Need for comfort and support of family members
8. Need for acceptance, support, and comfort from health professionals. (pp. 116-117)

A limitation of this study was that it only dealt with spouses of terminally ill patients.

Rukholm, Bailey, Coutu-Wakulczyk, and Bailey (1991) studied the needs and anxiety levels of relatives of ICU patients. This study utilized the self-report Critical

Care Family Needs Inventory (CCFNI) developed by Molter and Leske (cited in Rukholm et al., 1991). Some of the statements judged to be "very important" by more than 78% of the subjects were: (a) to be assured of best care, (b) to receive honest answers, (c) to be called regarding changes, (d) to feel hopeful, (e) to receive understandable explanations, (f) to get information daily, and (g) to see the patient frequently. The STAI was used to measure anxiety. Most of the subjects in this sample were female (73%). Their mean anxiety score was 45.24.

Rodgers (1983) completed a descriptive study focused on the needs of relatives of cardiac surgery patients during the critical care phase. In this study the 10 most important needs were:

1. To know I would be called at home if there was a change in the patient's condition.
2. To feel that hospital personnel care about the patient.
3. To have questions answered honestly.
4. To know exactly what was being done for the patient.
5. To have specific facts concerning the patient's progress.

6. To know the patient's chances for recovery.
7. To feel that there was hope.
8. To receive understandable explanations.
9. To have reassurance that the best care was being given to the patient.
10. To receive information once a day.

Seven of 10 most important needs were met for all subjects. Nurses met 9 of the 10 most important needs. The need "to feel that there was hope" was met by a variety of resources.

Daley (1984) completed a study investigating the immediate needs of families with relatives in the intensive care setting. A 46-item needs questionnaire was developed, using ideas from a number of other researchers' instruments. The questionnaire was subdivided into six categories, listed in their order of importance: (a) relief of anxiety, (b) information, (c) to be with patient, (d) to be helpful, (e) support and ventilation, and (f) personal needs. The 10 most important need statements were:

1. To know what is wrong with the patient.
2. To know what the outcome may be.
3. To have questions answered honestly.
4. To be reassured the patient is doing all right.

5. To be called at home if the patient's condition changes.

6. To have questions answered.

7. To talk to the physician.

8. To be with the patient in the ICU.

9. To be informed of any changes in the patient's condition.

10. To know nurses are giving the best possible care.

Most of the top 10 needs were met by physicians. The majority of the lower priority needs were met by nurses.

The question concerning the perceptions of selected family members and intensive care nurses involving selected psychosocial needs of family members of critically ill adult patients hospitalized in an ICU was addressed by O'Neill-Norris and Grove (1986). These authors utilized Molter's instrument that measured the psychosocial needs of family members and reduced it from 45 to 30 statements. The four most important needs were identified as: (a) to feel there is hope, (b) to feel that hospital personnel cared about the patient, (c) to have questions answered honestly, and (d) to be assured that the best possible care was being given to the patient. The three least important needs were (a) to talk about feelings, (b) to talk about the possibility of the patient's death, and (c) to have

visiting hours changed for special conditions. In this same study the perceptions of critical care nurses concerning family needs were addressed. Three of the four highest ranking needs dealt with the need for information and the fourth, to feel the hospital personnel cared about the patient, was consistent with the family members' perceptions. In this particular study the nurses did not realize how important they were to the family and that family members needed to feel accepted by the nurses.

A descriptive study was done by Spatt, Ganas, Hying, Kirsch, and Koch (1986) to determine the needs of families of ICU patients and to identify which of these needs went unmet. The five most unmet needs were:

1. To talk to the physician each day.
2. To talk to the same nurse each day.
3. To differentiate between various personnel caring for patient (laboratory technician, nurse, physician).
4. To receive explanations regarding progress and changes in condition.
5. To have flexible visiting hours.

In this study no significant difference was found between the needs identified by spouses and the needs identified by other family members.

Lynn-McHale and Bellinger (1988) completed a study where "relatives of critically ill patients were compared with critical care nurses in the extent to which each perceived the satisfaction level of needs identified as pertinent for relatives of critically ill patients" (p. 448). Family members had to be 18 years of age or older and have visited the patient in the ICU between 24 and 72 hours after admission. The conclusion of this study was that nurses are moderately accurate in identifying the extent to which family members perceive their needs as being met. It is imperative that family needs are accurately identified so that nursing actions can be developed to meet those needs.

Because of the recognition that humans are biopsychosocial beings, more emphasis is being placed on meeting psychosocial needs as well as physical needs when a crisis such as intensive care hospitalization occurs. Health professionals increasingly are becoming aware of the fact that a patient cannot be viewed as an isolated individual; most patients greatly influence and are influenced by their families. For this reason, nurses should try to assist families in developing strategies to cope during a crisis situation (Caine, 1989).

Visiting Practices in Intensive Care Units

Nurses are becoming more liberal in their practices of allowing family members to visit in the critical care units. There is a growing trend to include the family or significant other in the treatment or care plan of the intensive care patient. This idea has been identified as assisting the relatives and patient in coping with illness.

In a Pennsylvania hospital in 1868, visitors were allowed only between 12 noon and 1:00 p.m. (except Sundays), while nurses and domestics were to have visitors only between the hours of 2 and 6 on Sunday (Rosenberg, 1987). Private patients had the privilege of receiving visitors at almost any time of the day (although many hospitals did try to discourage all visitors before noon), while ward visiting hours were sharply limited (Rosenberg, 1987). In the last 30 years dramatic changes have taken place regarding visitation policies. A spouse or significant other is now being allowed to assist the woman in labor. Research has shown that high anxiety during labor is decreased when the significant other is present at the bedside (Heater, 1985).

Hospitalization within the critical care environment is one of overwhelming stress; why then are patients and family members routinely separated? Younger, Coulton,

Welton, Juknialis, and Jackson (1984) proposed four reasons that visitors have been restricted:

1. Visits are too upsetting for the visitors, especially children.
2. Visits may be physiologically disruptive and damaging to the patient.
3. Visitors or patients run the risk of infection.
4. Visiting disrupts the unit and depletes the staff's time and energy.

The idea that visitors might be stressful has been suggested by several authors. Some suggestion has been made that although visitors were a source of comfort to some patients, other patients were "made anxious by the obvious apprehension being experienced by the visitor" (Kornfeld, Maxwell, & Momrow, 1968, p. 43). These authors advocated that the presence of visitors should be controlled by the nurse. Glaser and Strauss (1965) noted that when visiting restrictions were relaxed due to a patient's worsening condition some family members "bothered" the patient. They also recommended that the nurse control visitation.

Zetterlund (1971) conducted a study in the coronary care units of two hospitals with written policies that one member of the patient's family could visit for 5 minutes

every hour. Only one of nine family members interviewed approved of the 5-minute visit. The remaining eight visitors preferred longer visits. Four family members felt that there should be some restriction, but that the amount of time spent with the patient should depend on the severity of his illness. One visitor commented that the head nurse should determine the length of visits for each patient and that one rule should not apply to all patients (Zetterlund, 1971).

In a study of 50 patients where hospital policy allowed one 10-minute visiting period each hour from 10:00 A.M. to 9:00 P.M., Brown (1976) concluded that a family visiting period of 10 minutes every hour created a stressful effect on the blood pressure and heart rate of cardiac patients in the coronary care unit (CCU). However, she also concluded that relatives often felt unsatisfied with the 10-minute visiting period each hour and remained in the waiting room several hours to see the patient once an hour.

Fuller and Foster (1982) measured patients' microtremor supressions in the vocal muscles and concluded that family visits were no more stressful than staff-patient interactions. There was an indication, based on their data, that family/friend visits to surgical

intensive care unit (SICU) patients are not any more stressful than are routine nurse-patient interactions. The study further showed that 15-minute visits are no more stress/arousal provoking than are shorter 5 to 10 minute periods. These authors contended that the difference in findings between this study and Brown's (1976) study are possibly due to the difference in patient populations. SICU patients may show less of a cardiovascular stress response as a result of family visits than do CCU patients (Fuller & Foster, 1982).

Geary (1979), in an exploratory study of the families of patients in the intensive care and coronary care unit, found that remaining near the patient was a coping mechanism. Relatives in this study spent long hours in the waiting room because they "felt better" being near the patient, had no pressing duties to perform at home, or were unable to function as usual because of concern for the patient. Two families, because of their strong ethnic background, viewed "being there" as a necessary element in the care/cure of the patient.

Halm and Titler (1990) conducted a quality assurance study at a large midwestern hospital. The purpose of the study was to examine importance and satisfaction of visiting needs of family members of critically ill

patients. The study also examined the attitudes of patients, family members, nurses, and physicians in regard to a less restricted visitation policy. The sample was obtained on four different units of the hospital: (a) medical intensive care unit (MICU), (b) surgical intensive care unit (SICU), (c) cardiovascular intensive care unit (CVICU), and (d) burn treatment center (BTC). Each unit followed their own policy for visitation. The results of this study showed that most family members (45%) desired an unlimited number of visits per day, whereas the majority of patients (65%) preferred two, four, or six visits per day (Halm & Titler, 1990). These authors also discovered that 23% of the nurses preferred unlimited visitation, while 52% of nurses preferred limiting visitation to 15 to 30 minutes. Other family members indicated that visiting hours should be restricted during the night, as long as condition changes are reported to the family.

Halm and Titler (1990) contended that over half of the patients interviewed expressed a desire to have their family visit more frequently during the ICU experience. Family members believed that frequent visiting was important to the recovery of their critically ill member.

A recent study by Simpson (1991) examined the relationships among patients' preferences for visits,

selected personal and illness characteristics, and the perceived impact of visits in a sample of 50 CCU and 50 SICU patients. Patients in this study perceived benefits from having visitors; however, the results also suggested that it was best when families knew when to leave and patients could relax or sleep in their family members' presence. "Patients in this study also felt the need to have visiting curtailed when they were in pain or nauseated" (Simpson, 1991, p. 686). The patients in this study preferred longer visits at less frequent intervals, and the more severely ill they perceived themselves to be, the greater was the number of visitors they preferred. Simpson suggested that patients involved in a planned critical care admission might prearrange what type of visitation they preferred.

Hopping, Sickbert, and Ruth (1992) contended that there are four factors related to current visiting policies in CCUs: (a) the tradition of allowing only 5 minutes out of every hour for immediate family members, (b) the level of nursing education of the staff, (c) the nursing staff's belief that limited visitation allows more rest for the patient, and (d) the nursing staff's belief that having visitors is stress-provoking instead of stress-reducing. A study was conducted in 10 midwestern hospitals examining

the factors associated with CCU visitation policies. These authors found that teaching hospitals were more likely to allow liberal visiting hours than nonteaching hospitals. In teaching hospitals, the nurses were more likely to originate visitation policies, whereas in the nonteaching facilities the decision was made by administration officials (Hopping et al., 1992). The advantages of restricted visiting hours for patients were that of rest or undisturbed sleep. Advantages for nurses, were seen as control, undisturbed change of shift report, and less crowding in the unit. The implications suggested by these authors were that nurses should examine their traditional beliefs about visiting policies and conduct more research in this area.

Visiting hours in a CCU have long been a source of disagreement among staff, family, and patients. Brannon, Brady, and Gailey (1990) conducted a study to evaluate the effectiveness of contractual visitation in an ICU environment. During a 1-month period staff utilized a contract that the family filled out to show the times they would prefer to visit. In that time period 80 contracts were negotiated, with a copy being put on the outside of the patient's door. At the end of the month, 100% of the

patients and family members and 95% of the nursing staff preferred contractual visitation (Brannon et al., 1990).

The Role of the Nurse in Interacting with
Family Members of Critically
Ill Patients

Cook (1978) noted that professional nurses have the opportunity to establish therapeutic interpersonal relationships with many persons, especially during times of change due to altered states of health. Hospitalization in an ICU is seen by patient and family as a threat to life. Whenever stressful events occur in a person's life situation that threaten his sense of biological, psychological, or social integrity, there is some degree of disequilibrium resulting and the concurrent possibility of a crisis (Aguilera, 1990).

Kuenzi and Fenton (1975) contended that individuals in the acute care setting are in a hazardous situation rather than a true crisis. However, utilizing the concept of crisis theory will assist families in identifying their feelings and possibly prevent a true crisis from occurring.

In the acute care setting a time element is involved in dealing with families. Rodgers (1983) hypothesized that nurses' interactions with families are limited primarily by insufficient time, because the focus of the nurse is on care of the patient. The result of this is that families

cannot find a support network to help alleviate their anxiety. The nurse can help alleviate anxiety by assuring the family that they can remain close to the patient, thus maintaining some degree of contact within the family unit (Breu & Dracup, 1978b; Gardner & Stewart 1978; Hampe, 1975).

Geary (1979) identified five coping mechanisms utilized by relatives of patients in critical care areas:

1. Minimization--reducing or attempting to ignore the significance of the event.
2. Intellectualization--the adoption of an overly rational attitude accompanied by a de-emphasis of the feelings involved in the experience.
3. Repetition--subjects saying or asking the same thing over and over, as if trying to convince themselves of something.
4. Acting strong--a family member presenting as brave, competent, and able to deal with illness in the family.
5. Remaining near the patient--spending long hours in the waiting room. (p. 53)

The nurse can use her knowledge of these five common coping mechanisms as a framework for understanding and assisting the relatives of patients in intensive care units (Geary, 1979).

The results of a study completed by Boykoff (1986) suggested three primary roles the nurse can play in visitation policies in an intensive care unit. The three roles are (a) communicator, (b) gatekeeper, and (c) absolute care provider. The family members felt the nurse

should convey any information about the patient's condition, test results, and discharge plans to the family. In this study the families and patients seemed to prefer the nurse to be a "gatekeeper" during visitation. The families also implied that the nurse should guide the visitors in adjusting the visiting intervals to meet the needs of the patient. Most of the respondents in the study preferred to have the nurse do all the patient care.

Gardner and Stewart (1978) speculated that the hospital staff's failure to appropriately interact with family members can lead to heightened anxiety and fear in the family. This lack of interaction of the staff with the family can progress to a sense of misunderstanding, mistrust, and hostility that develops in the family toward the hospital staff. These authors viewed the role of the hospital staff with families as: providing information and education, encouraging appropriate expressions of feelings, and making environmental interventions such as helping the family find temporary lodging. The hospital staff when interacting with the family should use familiar language in explaining procedures involving their family member and in explaining equipment that surrounds the patient. To prepare for continuing contact, relatives should be given the unit telephone number to call whenever they feel

concerned. Knowing that they may call diminishes anxiety; rarely do they abuse this privilege (Caplin & Sexton, 1988; Gardner & Stewart 1978). When family members call, they should speak to the nurse caring for the patient. This improves rapport with the staff and provides the family with the most current information about the patient.

Breu and Dracup (1978a) reported on the use of primary nursing as a means of meeting the needs of grieving spouses of coronary care unit patients. One nurse each shift assumed the major responsibility for each patient and developed a relationship with the spouse. Part of each primary nurse's daily responsibility was to spend 15 minutes with the spouse, away from the patient's bedside, and to call the spouse at home at prearranged times to report on the patient's condition. Using this approach, nurses were able to meet the emotional needs of patients and families as well as the physical ones, despite the highly technical milieu of the coronary care unit (Breu & Dracup, 1978a).

Assessment of the needs of the family members and their perceptions of their relative's illness are paramount in determining the appropriate interventions to meet the needs of the patient (Daley 1984; O'Neill-Norris & Grove, 1986; Stillwell, 1984). Craven and Sharp (1972) stressed

the need for the nurse to make a conscientious, intentional assessment of the family to identify those components and relationships within the family that can be utilized to plan and implement patient care.

An area for nursing to consider is the collaborative team approach to patient and family care. Cray (1989) was involved in the implementation of a family intervention program in a large medical center. The team involved staff, unit chaplains, and clinical nurse specialists. The visitors in the MICU were given a teaching booklet that discussed unit policies, unit equipment, disease processes common to the critically ill medicine patient, nursing procedures, and availability of local churches and hotels. The booklet also outlined some of the common feelings and concerns expressed by the family member who had a loved one hospitalized. A family assessment form was also utilized in this program to obtain personal information concerning the family's living situation, marital and educational status, and experience with illness. A significant family member was called twice weekly with a report on the patient's condition. Educational classes were also offered, to the family members in the waiting room, on MICU procedures, respiratory and kidney failure, and patients' stages of

awareness during their critical illness. Cray found that evaluations of the classes showed a highly favorable rating. Seventy-six participants were asked to rate the classes; 71 strongly agreed that the classes were helpful in understanding their "loved one's" illness. All 14 program families indicated that the program was most helpful. The staff expressed the belief that there had been fewer communication conflicts between families and the unit staff since the classes were offered.

Moseley and Jones (1991) contended that visitation needs of the patient and family should be integrated into the plan of care. These authors stressed the need for making a contract with the family concerning visitation. Contractual visitation focuses on family involvement with the patient as well as meeting the needs of family members. Also, the nursing staff is better able to plan their treatments around the visitation schedule and families can plan visits at the most convenient times to fit their lifestyles. Caine (1989) emphasized the importance of individualizing visiting hours to fit the needs of families and patients. Keeping visiting hours flexible and open can meet those needs.

Summary

The review of the literature has presented a discussion of the responses of family members of critically ill patients, the needs of the family, visiting practices, and the role of the nurse in working with the family. The responses of family members included feelings of anxiety and the subsequent problems brought on by the hospitalization of a "loved one." Several studies were presented that describe the sources of anxiety and the effects of the hospitalization on the family members.

The chapter included a section on the needs of the family. Most of the literature presented involved the ranking of needs felt most important by families. Several studies examined nurses' perceptions of family needs. The family's perception of how their needs were being met was also addressed.

A discussion was presented on the visiting practices of the past, current visiting policies, and the effects of liberalized visitation on families and patients. The review revealed the myths presented by nurses as to why visiting restrictions should be upheld, as well as the desires of families and patients in regard to visiting practices.

Finally, the role of the nurse in interacting with the families of the critically ill was presented. The major emphasis in the discussion of the nurse's role was that of including the family in the patient care plan due to the effect of the hospitalization on the family. The literature indicated that when families are in crisis the nurse should assess the families' needs. Several ideas were presented to help alleviate anxiety in the family members such as conveying information to families about the patient, allowing more liberalized visitation practices, and becoming part of the family's support network.

CHAPTER III

PROCEDURE FOR COLLECTION AND TREATMENT OF DATA

This study was classified as a quasi-experimental research design. According to Polit and Hungler (1991), quasi-experiments involve the manipulation of an independent variable or the institution of an experimental treatment. The authors also wrote that this design lacks one of the properties of a true experiment, that of randomization. According to Burns and Grove (1987), the purpose of a quasi-experimental design is to examine causality. The power to accomplish this is dependent upon the degree to which the actual effects of the treatment can be detected by measurement of the dependent variable. These authors also stated that this design requires the researcher to control for threats to validity through careful selection of subjects, manipulation of the treatment, and reliable measurements of the variables. Polit and Hungler (1991) pointed out that the strength of quasi-experiments "lies in their practicality and to a certain extent, their generalizability" (p. 167). They contended that it is often difficult to conduct true experiments in the "real world."

This study compared the anxiety levels of the wives of hospitalized spouses. The independent variable was manipulated by the researcher, so that the spouses in the experimental group were allowed unlimited visitation in the acute coronary care unit from 7 A.M. to 11 P.M. The wives in the control group were allowed visitation in the cardiovascular intensive care unit four times daily. The dependent variables of anxiety and satisfaction with visiting hours were measured in both groups. The State-Trait Anxiety Inventory (STAI) was used to measure anxiety in these subjects.

Setting

This study was conducted in a private, not-for-profit hospital located in a large metropolitan city in the southwestern United States. This facility has a 628 bed capacity. There is a 10-bed cardiovascular intensive care surgical unit (CVICU) and a 6-bed acute coronary care medical unit (CCU). The average monthly admissions to the CVICU is 79, with an average stay of 2 days. The average monthly admissions to the acute CCU is 60, with an average stay of 3 days. The CVICU has a professional nursing staff of 32, and the CCU has a professional nursing staff of 14. The CVICU has had a restricted visitation policy. The CCU has had a more liberal visitation policy. The CVICU staff

has been taking into consideration the specific needs of each patient and family. The staff of the CCU agreed to allow unlimited visitation from 7 A.M. to 11 P.M. during the time of the study. Now that the study is complete, the CCU staff is presently making the determination of whether or not to continue with unlimited visitation.

Population and Sample

The accessible population for this study consisted of the wives of male patients in the study hospital who were either in the CCU, for the experimental group, or in the CVICU, for the control group. The sample was one of convenience. A convenience sample, according to Polit and Hungler (1991), is one where the subjects are the most convenient persons available. To be included in the study, the subjects had to be able to read, write, and communicate in English.

The researcher obtained 28 subjects in the control group and 25 subjects in the experimental group. Data from the control group were collected prior to that of the experimental group. This procedure was used to help decrease the possibility that the two groups of spouses might interact with each other, if the data were collected at the same time. The researcher anticipated that if the two groups interacted with each other, satisfaction with

visiting hours might be influenced. The 53 spouses were secured for this study between November 1992 and March 1993.

Protection of Human Subjects

Criteria regarding protection of human subjects established by Texas Woman's University were met. This study fell under the Category II type of study because the researcher knew the identities of the subjects. Permission to conduct the study was obtained from the Human Research Review Committee (Appendix A). Permission to conduct the study was also obtained from the institution where the research was conducted (Appendix B). Finally, permission was obtained from the Graduate School to conduct this study (Appendix C).

In order to ensure the protection of human subjects, a letter of explanation was read to each potential subject when she was asked to participate (Appendix D). The potential subjects were notified that the purpose of the study was to investigate the level of anxiety experienced by wives whose husbands were hospitalized in intensive care units, as well as their satisfaction with visiting hours. They were also told that the knowledge gained from this study would contribute to an understanding of how wives cope with the hospitalization of their spouses.

The potential subjects were told that their participation in the study would involve the completion of three questionnaires. They were asked to complete one short questionnaire within 12 hours after their spouses' admission to the ICU and to complete the same questionnaire again approximately 48 hours later. At that latter time, they were asked to answer some demographic questions, such as how long they had been married, and also asked how satisfied they had been with visiting hours. After completion, the investigator immediately coded the forms and placed the subject's name and code number in a log book. The investigator had the only access to the log book. The forms were kept in a locked drawer and were destroyed after the data analysis was completed.

Participation was voluntary. The investigator relied on the nursing staff of the two intensive care units to point out eligible participants, who then were approached. Potential subjects were informed that if they did not wish to participate, that decision would not affect the care their spouses received. The potential subjects were notified that they could discontinue their participation at any time prior to the completion of the study.

The potential subjects were notified how to contact the researcher, by way of telephone, about the study. They

were also notified that the results would be available in the office of the Special Care Units upon completion of the study.

Instruments

There were three instruments used in this study. The first questionnaire was a demographic data tool (Appendix E) that obtained information about the subjects' age, previous experience with hospitalizations of her spouse, and the length of the marital relationship. The second instrument was a visual analog scale (VAS) that was used to measure subjects' satisfaction with visiting hours. The VAS was included on the bottom of the demographic questionnaire. The third instrument was the State-Trait Anxiety Inventory (STAI) (Appendix F) and this was used to measure subjects' anxiety levels. This tool was administered twice to the subjects.

According to Polit and Hungler (1991), a visual analog scale is a straight line used to measure subjective experiences, with the end anchors labeled as the extreme limits of the feeling of being measured. These authors also stated that the subjects are to mark a point on the line corresponding to the amount of sensation experienced. The VAS line is typically 100 mm in length. A score is obtained by measuring the distance in millimeters from the

low end of the scale to a specified mark placed on the line by the subject (Waltz, Strickland, & Lenz, 1991). The investigator utilized a ruler to measure the distance from the low end of the scale to the subject's mark on the line. These marks were considered interval data.

The third instrument utilized was the State-Trait Anxiety Inventory (STAI) Form Y developed in 1983 by Spielberger et al. Comprised of two self-report scales, the instrument was used for measuring the two distinct anxiety concepts of state anxiety (A-State) and trait anxiety (A-Trait) (Spielberger et al., 1983).

The A-State scale consists of 20 statements which asks the subjects to indicate how they feel at a particular moment in time. The authors have contended that the qualities evaluated by the A-State scale involve feelings of tension, nervousness, worry, and apprehension. The subjects responded to each STAI item by rating themselves on a 4-point scale. The responses range from 1 (not at all) to 4 (very much so). The questionnaire includes such statements as "I feel calm" and "I feel confused." Scores on the scale can range from a minimum of 20 to a maximum of 80. The higher the score, the higher is the individual's anxiety level.

The T-Anxiety scale consists of 20 statements which assess how people generally feel (Spielberger et al., 1983). This tool is scored like the A-State scale.

The STAI has been used extensively in evaluating anxiety in adults under a variety of testing conditions. Therefore, data on validity and reliability are available (Spielberger et al., 1983). In establishing evidence of the construct validity of the A-state scale, military recruits, who were just beginning a stressful training program, were shown to have higher state anxiety scores than trait anxiety scores. In contrast, scores on both scales were quite similar for individuals tested in relatively non-stressful situations.

Test-retest reliability was obtained by Spielberger et al. for the STAI. Subgroups of undergraduate college students (357) took the STAI. A total of 197 students were retested after 1 hour and sequentially exposed during this test-retest interval to the following experimental conditions: a brief period of relaxation training, a difficult I.Q. test, and a film that depicted accidents resulting in serious injury or death. Test-retest correlations for the A-Trait scale were reasonably high, ranging from .73 to .86. Those for the A-State scale were relatively low, ranging from .16 to .54, with a median r

of .32 for the subgroups. The low correlations for the A-State scale was anticipated by the researchers because "a valid measure of A-State should reflect the influence of unique situational factors existing at the time of testing" (Spielberger et al., 1983, p. 13). In conclusion, the test-retest reliability of the STAI A-Trait scale was high, and stability coefficients for the STAI A-State scale were low, as expected for a measure designed to be influenced by situational factors.

The A-Trait and A-State scales have a high degree of internal consistency. The overall median alpha coefficients for the A-Trait and A-State scales for Form Y in the normative samples was .92 and .90, respectively (Spielberger et al., 1983).

Spielberger et al. used a number of different types of groups to establish norms. The group that appears to be most similar to the sample in the present study is female working adults. Their mean anxiety level was 35.2.

Data Collection

Data for this study were collected in the following manner. All the questionnaires were distributed and collected by the investigator. The potential subjects were approached after being pointed out by the nursing staff, to the investigator, as possible participants. This took

place within 12 hours of their spouses' admission to the ICU. The potential subjects were given a written and verbal explanation of the study and, if willing to participate, they were asked to sign a consent form. The subjects were then given a copy of the signed consent form.

The A-State and A-Trait scales were administered initially to the spouses within 12 hours of the patient's admission to the ICU. The A-State scale was readministered to subjects 48 hours after the initial questionnaire was completed. The demographic tool was also completed with the second questionnaire, and the spouses' satisfaction with visiting hours was measured at that time. This allowed time for the subjects to form an opinion about visiting hours. The subjects utilized a quiet conference room in which to answer their questionnaires, with the investigator available to answer any questions. Questionnaires were coded by the investigator in a log book in order to be able to match the responses on all three of the instruments.

Treatment of the Data

Characteristics of the group were presented using descriptive statistics. This information included the subject's age, previous experience with hospitalization of

her spouse, length of the marital relationship, satisfaction with visiting hours, and anxiety levels.

Scores on the A-State and A-Trait scale (STAI) were determined using the criteria for scoring that was identified by Spielberger et al. Subjects' scores were presented as percentiles and then compared to Spielberger et al.'s norms. Additionally, the data were treated as interval data and means and standard deviations were calculated.

For the first hypothesis concerning anxiety levels of the two groups of wives and their satisfaction with visiting hours, the analysis of covariance (ANCOVA) was used. The independent t-test was used to test the second hypothesis that compared satisfaction with visiting hours between the two groups of wives. The third hypothesis, concerning the correlation between the wives' anxiety levels and their satisfaction with visiting hours, was examined using the Pearson r. The level of significance for all hypotheses was set at .05.

CHAPTER IV

ANALYSIS OF DATA

This quasi-experimental study was conducted to determine the difference in the level of state anxiety between wives who were allowed unlimited visitation with their hospitalized spouses in the ICU as compared with wives who were allowed to visit their spouses only four times daily for 15 minutes each time. This study also examined the level of satisfaction with visiting hours.

There were three instruments used in the collection of the data. A demographic questionnaire solicited information related to age, previous hospitalizations of the spouse for this type of illness, and years that the couple had been married. A visual analog was used to measure the wives' satisfaction with visiting hours. Finally, the STAI Form-Y (Spielberger et al., 1983) was utilized to measure the wives' anxiety levels.

A description of the sample is presented first. Next, the results of the analysis of covariance, which was utilized to compare the anxiety levels of the two groups of wives, is presented. The results of an independent t-test is used to present the difference in satisfaction with

visiting hours between the wives allowed unlimited visitation with their spouses and the wives allowed visitation with their spouses only four times daily. Finally, the correlation between the wives' anxiety level and their satisfaction with visiting hours is presented, based on the Pearson r . This chapter presents a description of the sample, analysis and interpretation of the data, and, finally, a summary of the findings.

Description of the Sample

The sample was one of convenience. The researcher approached 54 potential subjects for the study; 53 volunteered to participate. The control group of 28 subjects was composed of wives of hospitalized male patients in the CVICU. The experimental group consisted of 25 wives of hospitalized male patients in the CCU.

In the control group, there were 2 (7%) subjects in the age range of 40-49, 7 (25%) in the age range of 50-59, 14 (50%) in the age range of 60-69, and 5 (18%) in the 70-79 age range. In the experimental group, there was 1 (4%) subject in the age range of 30-39, 2 (8%) in the 40-49 age range, 2 (8%) in the 50-59 age range, 13 (52%) in the 60-69 age range and 7 (28%) in the 70-79 age range (see Table 1).

On the demographic data sheet a question asked whether or not the spouse had been hospitalized previously for this same illness. In the control group, 7 (25%) subjects reported their spouses had been hospitalized before for this type of illness; 21 (75%) indicated no previous hospitalizations of their spouses for a similar illness. In the experimental group, 9 (36%) reported their spouses had been hospitalized previously for this type of illness and 16 (64%) reported no previous hospitalizations of their spouses for this type of illness (see Table 1).

The demographic data sheet also gathered information about the length of the marital relationship. In the control group, 1 (3.5%) subject had been married 11-15 years, 1 (3.5%) had been married 16-20 years, and 26 (93%) had been married greater than 20 years. In the experimental group, 1 (4%) subject had been married less than 2 years, 2 (8%) had been married 2-5 years, 2 (8%) had been married 11-15 years, and 20 (80%) had been married greater than 20 years (see Table 1).

Table 1

Demographic Data of the Sample

Characteristics	Groups			
	Control		Experimental	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
<u>Age in years</u>				
20-29	0	0	0	0
30-39	0	0	1	4
40-49	2	7	2	8
50-59	7	25	2	8
60-69	14	50	13	52
70-79	5	18	7	28
80-89	0	0	0	0
	<u>28</u>	<u>100</u>	<u>25</u>	<u>100</u>
<u>Previous hospitalizations for this type of illness</u>				
Yes	7	25	9	36
No	21	75	16	64
	<u>28</u>	<u>100</u>	<u>25</u>	<u>100</u>
<u>Years married</u>				
< 2 years	0	0	1	4
2-5 years	0	0	2	8
6-10 years	0	0	0	0
11-15 years	1	3.5	2	8
16-20 years	1	3.5	0	0
> 20 years	26	93	20	80
	<u>28</u>	<u>100.0</u>	<u>25</u>	<u>100</u>

Findings

The STAI was utilized to measure the anxiety levels of wives whose spouses were hospitalized in the intensive care units. The subjects completed the A-Trait and A-State scales of the STAI within 12 hours of their spouses' admission to the intensive care unit. The A-State and the demographic questions were completed approximately 48 hours later. Satisfaction with visiting hours was also measured at this time.

Scores on the first A-State measurement for the control group, who had visitation with their husbands four times daily, ranged from 23 to 58, with a mean of 42.57 and a standard deviation of 11.20. The subjects in the experimental group, allowed unlimited visitation with their husbands, had scores on the first A-State measurement that ranged from 35 to 69, with a mean of 58.08 and a standard deviation of 9.48 (see Table 2).

The subjects in the control group scored in the range of 23 to 48 on their A-Trait scores, with a mean of 33.53 and a standard deviation of 5.50. The A-Trait scores of wives allowed unlimited visitation of their spouses ranged from 21 to 45, with a mean of 31.84 and a standard deviation of 7.57 (see Table 2). The second A-State score was obtained from both groups approximately 48 hours after

the initial A-State questionnaire was completed. The scores for the control group ranged from 20 to 50, with a mean of 36.89 and a standard deviation of 9.18. The experimental group's scores on the second A-State measure ranged from 29 to 80, with a mean of 47.32 and standard deviation of 12.65 (see Table 2).

The two groups' satisfaction with visiting hours was also obtained, using a visual analog scale. The control group subjects, who were allowed visitation of their spouses only four times daily, placed marks on the visual analog that ranged from 8 mm to 100 mm, with a mean of 77.39 mm and a standard deviation of 28.29 mm. The experimental group subjects, who were allowed unlimited visitation placed marks on the line that varied from 83 mm to 100 mm, with a mean of 96.00 mm and a standard deviation of 5.67 mm (see Table 2).

Three study hypotheses were tested. The first hypothesis stated: When controlling for trait anxiety and state anxiety, at 12 hours following hospitalization of the spouse, state anxiety at 48 hours is lower for those wives who are allowed unlimited visitation with their spouses in the ICU in comparison to the wives who are limited in visitation with their spouses to four times daily. Analysis of Covariance (ANCOVA) was used to "test the

Table 2

Means and Standard Deviations for the State Trait Anxiety
Scores and Satisfaction with Visiting Hours

Variable	Groups			
	Control		Experimental	
	<u>M</u> (<u>n</u> = 28)	<u>SD</u>	<u>M</u> (<u>n</u> = 25)	<u>SD</u>
A-Trait	33.53	5.50	31.84	7.57
A-State I	42.57	11.20	58.08	9.48
A-State II	36.89	9.18	47.32	12.65
Satisfaction with visiting hours	77.39	28.39	96.00	5.67

significance of differences between group means after adjusting the scores on the dependent variable to eliminate the effects of the covariate" (Polit & Hungler, 1991, p. 469). The results of the ANCOVA revealed there was a significant difference ($F = 5.88$, $p = .02$) in the adjusted mean scores of the two groups. Therefore, the research hypothesis was supported (see Table 3).

The second hypothesis tested in this study stated:
 There is a greater sense of satisfaction with visiting hours by those wives who are allowed unlimited visitation

with their spouses in the ICU in comparison to the wives who are limited in visitation of their spouses to four times daily. The independent t -test was utilized to test the second hypothesis. This hypothesis was also supported ($t = -3.40$, $p = .002$).

The last hypothesis stated: There is a negative correlation between satisfaction with visiting hours and the state anxiety levels of the wives of patients in the ICU. This hypothesis was examined using the Pearson r . No significant relationship was found ($r = -.03$, $p = .42$). Therefore, the last hypothesis was not supported.

Table 3

Anxiety of Experimental and Control Groups at 48 Hours,
Controlling for Anxiety at 12 Hours and Trait Anxiety

Source of variance	Sum of squares	<u>DF</u>	Mean square	<u>F</u>	Sig. of <u>F</u>
Covariates	1745.359	2	872.680	8.248	.001
STA	1198.524	1	1198.524	11.327	.001
TRA	305.173	1	305.173	2.884	.096
Main Effects	622.165	1	622.165	5.880	.019
GR	622.165	1	622.165	5.880	.019
Explained	2367.524	3	789.175	7.459	.000
Residual	5184.589	49	105.808		
Total	7552.113	52	145.233		

Summary of Findings

The findings of this study were as follows:

1. In the control group, the majority of subjects (19 or 68%) were 60 years or older. The majority of subjects in the experimental group (20 or 80%) were in this same age range.

2. The findings regarding previous hospitalizations revealed that 21 (75%) of the control group subjects had not had their spouses hospitalized for this type of illness. In the experimental group, 16 (64%) reported no previous hospitalizations of their spouses for this type of illness.

3. In the control group, 26 (93%) of the subjects had been married to their spouse for greater than 20 years, and in the experimental group, 20 (80%) had been married for greater than 20 years.

4. The findings showed that the control group had a mean A-Trait score of 33.53; the experimental group had a mean A-Trait score of 31.84.

5. The control group exhibited a lower mean score on the first A-State measurement, with a score of 42.57 as compared to the experimental group's mean score of 58.08.

6. On the second A-State measurement, the control group's mean score was 36.89, and the experimental group's mean score was 47.32.

7. The findings of the study showed that there was a significant difference in the anxiety levels of the two groups at approximately 48 hours following the hospitalization of the spouse, when controlling for trait anxiety and state anxiety at 12 hours following the hospitalization of the spouse ($F = 5.88$, $p = .02$). The anxiety level decreased more for wives who were allowed unlimited visitation with their spouses hospitalized in the ICU.

8. The findings showed that the wives allowed unlimited visitation of their spouses had a greater satisfaction level with visiting hours, scoring a mean of 96, compared with a mean score of 77.39 for the wives who were limited to four visits daily ($t = -3.40$, $p = .002$).

9. No significant correlation was found between spouses' satisfaction with visiting hours and their state anxiety levels at 48 hours after the hospitalization of their spouses ($r = -.03$, $p = .42$).

CHAPTER V

SUMMARY OF THE STUDY

This study compared the anxiety levels of wives of ICU patients who were allowed unlimited visitation with their spouses and those wives who were allowed to visit their spouses only four times daily for 15 minute each time. Additionally, the study examined the wives' level of satisfaction with visiting hours and the correlation between wives' satisfaction with visiting hours and their anxiety levels. Therefore, the dependent variables examined were wives' anxiety levels and their satisfaction with visiting hours. The independent variable, which was manipulated by the researcher, was visiting hours.

Visiting hours were defined as being unlimited (between 7 A.M. and 11 P.M.) or being kept to four times daily for 15 minutes each time. A demographic data sheet was developed by the researcher to gather data regarding age of subject, previous experience with hospitalization of her spouse and length of the marital relationship. Anxiety was measured by the STAI Form-Y self-evaluation questionnaire developed by Spielberger et al. (1983). The level of satisfaction with visiting hours was measured via the use

of a visual analog. This chapter includes the summary, discussion of the findings, conclusions and implications, and recommendations for further study.

Summary

This study was based on Spielberger et al.'s (1983) state-trait theory of anxiety. The process of state anxiety (A-State) is described by Spielberger et al. as a transitory emotional condition characterized by perceived feelings of tension. These authors further contended that the A-State intensity should be low in situations that are not perceived as threatening. Furthermore, trait anxiety (A-Trait) is seen as the relatively stable differences in individuals' anxiety proneness. Individuals who are high in A-Trait tend to perceive a larger number of situations as threatening.

The purpose of this study was to compare the anxiety levels of wives of ICU patients between those who were allowed unlimited visitation of their spouses from 7 A.M. to 11 P.M. and wives who were allowed to visit their spouses only four times daily for 15 minutes each time. Additionally, the study examined wives' level of satisfaction with visiting hours and the correlation between wives' satisfaction with visiting hours and their anxiety levels. The study used a quasi-experimental

design. The subjects were divided into two groups, control and experimental. The study was conducted in a private, not-for-profit hospital located in a large metropolitan city in the southwestern United States. A convenience sample was obtained from the accessible population, which consisted of wives of male patients who were either in the CCU, for the experimental group, or in the CVICU, for the control group. Twenty-eight subjects were obtained from the CVICU area (control group). Those subjects' were allowed to visit their spouses four times daily from 9 to 9:15 A.M., 1 to 1:15 P.M., 5 to 5:15 P.M., and 8 to 8:15 P.M. Twenty-five subjects were obtained from the CCU area (experimental group). Those subjects were allowed unlimited visitation of their spouses from 7 A.M. to 11 P.M. daily. The subjects were asked to fill out the STAI state (A-State) and trait (A-Trait) self-evaluation questionnaires within 12 hours of their spouses admission to the ICU. The posttreatment level of anxiety (A-State) was measured approximately 48 hours later, as well as the subjects' satisfaction with visiting hours.

The findings of the study were as follows:

1. In the control group, the majority of subjects (19 or 68%) were 60 years or older. The majority of subjects

in the experimental group (20 or 80%) were in this same age range.

2. The findings regarding previous hospitalizations revealed that 21 (75%) of the control group subjects had not had their spouses hospitalized for this illness before. In the experimental group, 16 (64%) reported no previous hospitalizations of their spouses for this illness.

3. In the control group, 26 (93%) of the subjects had been married to their spouse for greater than 20 years and in the experimental group, 20 (80%) had been married for greater than 20 years.

4. The findings showed that the control group had a mean A-Trait score of 33.53; the experimental group had a mean A-Trait score of 31.84.

5. The control group exhibited a lower mean score on the first A-State measurement, with a score of 42.57 as compared to the experimental group's mean score of 58.08.

6. On the second A-State measurement, the control group's mean score was 36.89, and the experimental group's mean score was 47.32.

7. The findings of the study showed that there was a significant difference in the anxiety levels of the two groups, at approximately 48 hours following the first administration of the A-State scale, when controlling for

trait anxiety and state anxiety at 12 hours following the hospitalization of the spouse ($F = 5.88$, $p = .02$). The anxiety level was decreased more for wives who were allowed unlimited visitation with their spouses hospitalized in the ICU.

8. The findings showed that the wives allowed unlimited visitation of their spouses had a greater satisfaction level with visiting hours, scoring a mean of 96 compared with a mean score of 77.39 for the wives who were limited to four visits daily ($t = -3.40$, $p = .002$).

9. No significant correlation was found between spouses' satisfaction with visiting hours and their state anxiety (A-State) levels at 48 hours after the hospitalization of their spouses ($r = -.03$; $p = .42$).

Discussion of Findings

The state anxiety levels of the subjects approximately 12 hours after their spouses were first admitted to the ICU were compared to Spielberger et al.'s (1983) normative data for a sample of female working adults in the 50-69 age group. This norm group was the closest approximation to the present study sample that could be located in the normative data presented in the test booklet. The mean for Spielberger et al.'s norm sample was 35.2. In the present study, the anxiety level of the control group was 42.57 and

the anxiety level of the experimental group was 58.08. The control group's mean anxiety level was at the 90th percentile and the experimental group's mean anxiety level was at the 99th percentile compared to the norm group. It should be pointed out that the acuity level of the subjects' spouses in the experimental group was higher than the subjects' spouses in the control group. This might account for the higher anxiety level of the experimental group. The experimental group's A-Trait anxiety mean score of 31.84 was at the 56th percentile rank and the control group's A-Trait anxiety mean score of 33.53 was at the 66th percentile compared to the norm group. Approximately 48 hours after their husbands' hospitalization, the subjects' state anxiety was measured again. The experimental group's mean score was 47.32, which is at the 93rd percentile. The control group's mean score was 36.89, which is at the 74th percentile. The experimental group's anxiety score decreased by 10.76 points, while the control group's anxiety score decreased by 5.68 points.

The literature review indicated no previous studies with which to compare the findings related to visiting hours and anxiety levels. Much of the literature available investigated the causes of anxiety in families and what

families perceived as their needs while a family member is hospitalized.

In Chartier and Coutu-Wakulczyk's (1989) study concerning needs and anxiety levels of immediate family members' of ICU patients, the mean situational anxiety level score, using the STAI tool, was 47.88. The sample was predominantly female (75%) and the mean age was 45.43. The STAI was also utilized in Rukholm et al.'s (1991) study which examined the needs and anxiety levels of relatives of intensive care unit patients. Most of the subjects in this study were female (73%) and the situational anxiety mean score was 45.24. The mean score of the A-State anxiety for the control group in the present study is similar to subjects in Chartier and Coutu-Wakulczyk (1989) and Rukholm et al.'s (1991) studies. The experimental group in the present study showed a much higher A-State score (\bar{x} = 58.08).

The second finding of the present study supported the hypothesis that the subjects allowed unlimited visiting hours would be more satisfied with visiting hours compared with subjects who were limited in their visiting hours. This finding is similar to Halm and Titler's (1990) findings that most family members desired an unlimited number of visits per day. Several studies identified the

family members' preference to have longer visiting periods (Brown, 1976; Geary, 1979; Zetterlund, 1971). Also, Spatt et al. (1986) found that one of the five most unmet needs of family members was to have flexible visiting hours.

A review of the literature supported the concept that having a family member hospitalized is an anxiety producing situation (Bozett & Gibbons, 1983; Halm, 1990; Gardner & Stewart, 1978; Zetterlund, 1971). One of the expressed perceived needs of family members in the literature was the desire to be with their loved ones (Daley, 1984; Molter, 1979; Stillwell, 1984). These two ideas contributed to the third hypothesis which was that there would be a negative correlation between satisfaction with visiting hours and the A-State anxiety levels. No significant relationship was found between anxiety levels and satisfaction with visiting hours. This result can possibly be attributed to the fact that there was not much variation in the scoring by both groups on the visual analog scale that measured satisfaction with visiting hours. Both groups were highly satisfied with visiting hours. The researcher observed the nursing staff of the CVICU (where the control group subjects were obtained) give visiting policy instructions to the subjects. The explanation given to the spouses indicated that limited visitation would give the subject

her rest and the spouse his needed rest. The nursing staff told the wife, "Let us take care of him now. You will be taking care of him alone when he gets discharged to home."

Conclusions

The following conclusions were derived from this study:

1. Hospitalization of a spouse is an anxiety producing situation. This anxiety tends to decrease over the first 48 hours, but remains quite high.
2. Spouses' anxiety levels tend to decrease more when unlimited visiting hours are utilized than when visitation is limited.
3. Spouses are more satisfied with unlimited visitation policies than with limited visiting hours.

Implications

Nursing staff should be encouraged in their own units to re-examine their traditional beliefs about restricted visitation policies. Flexibility in visiting hours could improve the quality of family centered care provided in the critical care setting. Visiting hours should be based on family and patient needs.

Recommendations for Further Study

Based on the conclusions of this study, the following recommendations are offered:

1. Replicate the study using one critical care unit to collect data for both groups.
2. Conduct similar studies using larger sample sizes and in other geographical areas of the country.
3. Conduct a similar study with subjects whose spouses have never been hospitalized before.
4. Conduct studies with varying degrees of unlimited visitation, such as 24 hour visitation compared to unlimited visitation between 7 A.M. and 11 P.M.

REFERENCES

- Aguilera, D. (1990). Crisis intervention: Theory and methodology. St. Louis: C. V. Mosby.
- Artinian, N. (1989). Family member perceptions of cardiac surgery event. Focus on Critical Care, 16, 301-308.
- Bouman, C. (1984). Identifying priority concerns of families of ill patients. Dimensions of Critical Care Nursing, 3, 313-319.
- Boykoff, S. L. (1986). Visitation needs reported by patients with cardiac disease and their families. Heart & Lung, 15, 573-578.
- Bozett, F., & Gibbons, R. (1983). The nursing management of families in the critical care setting. Critical Care Update, 10, 22-27.
- Brannon, P., Brady, A., & Gailey, A. (1990). Visitation in the CCU: From "rules to contracts." Critical Care Management Edition, 21, 64M-64P.
- Breu, C., & Dracup, K. (1978a). Helping spouses of critically ill patients. American Journal of Nursing, 78, 50-53.
- Breu, C., & Dracup, K. (1978b). Using nursing research findings to meet the needs of grieving spouses. Nursing Research, 27, 212-216.
- Brown, A. J. (1976). Effects of family visits on the blood pressure and heart rates of patients in the coronary care unit. Heart & Lung, 5, 291-295.
- Burns, N., & Grove, S. (1987). The practice of nursing research: Conduct, critique and utilization. Philadelphia: W. B. Saunders.
- Caine, R. M. (1989). Families in crisis: Making the critical difference. Focus on Critical Care, 16, 184-189.

- Caplin, M., & Sexton, D. (1988). Stresses experienced by spouses of patients in a coronary care unit with myocardial infarction. Focus on Critical Care, 15, 31-40.
- Chartier, L., & Coutu-Wakulczyk, G. (1989). Families in ICU: Their needs and anxiety level. Intensive Care Nursing, 5, 11-18.
- Cook, R. (1978). Psychosocial responses to myocardial infarction. Texas Nursing, 52, 6-9.
- Craven, R., & Sharp, B. (1972). The effects of illness on family function. Nursing Forum, 11, 187-193.
- Cray, L. (1989). A Collaborative project: Initiating a family intervention program in a medical intensive care unit. Focus on Critical Care, 16, 212-218.
- Daley, L. (1984). The perceived immediate needs of families with relatives in the intensive care setting. Heart & Lung, 13, 231-237.
- Fuller, B. F., & Foster, G. M. (1982). The effects of family/friend vs. staff interaction on stress/arousal of surgical intensive care patients. Heart & Lung, 11, 457-463.
- Gardner, D., & Stewart, N. (1978). Staff involvement with families of patients in critical-care units. Heart & Lung, 7, 105-110.
- Geary, M. (1979). Supporting family coping. Supervisor Nurse, 10, 52-59.
- Glaser, B. G., & Strauss, A. L. (1965). Awareness of dying. Chicago: Aldine.
- Halm, M. (1990). Effects of support groups on anxiety levels of family members during critical illness. Heart & Lung, 19, 62-71.
- Halm, M. A., & Titler, M. G. (1990). Appropriateness of critical care visitation: Perceptions of patients, families, nurses, and physicians. Journal of Nursing Quality Assurance, 5, 25-37.

- Hampe, S. (1975). Needs of the grieving spouse. Nursing Research, 24, 113-120.
- Heater, B. (1985). Nursing responsibilities in changing visiting restrictions in the intensive care unit. Heart & Lung, 14, 181-186.
- Hopping, B., Sickbert, S., & Ruth, J. (1992). A Study of factors associated with CCU visiting policies. Critical Care Nurse, 12, 8-15.
- Kornfeld, D. S., Maxwell, T., & Momrow, D. (1968). Psychological hazards of the intensive care unit: Nursing care aspects. Nursing Clinics of North America, 3, 41-52.
- Kuenzi, S., & Fenton, M. (1975). Crisis intervention in acute care areas. American Journal of Nursing, 75, 830-834.
- Leske, J. S. (1986). Needs of relatives of critically ill patients: A follow-up. Heart & Lung, 15, 189-193.
- Lynn-McHale, D. J., & Bellinger, A. (1988). Need satisfaction levels of family members of critical care patients and accuracy of nurses' perceptions. Heart & Lung, 17, 447-453.
- Molter, N. (1979). Needs of relatives of critically ill patients: A descriptive study. Heart & Lung, 8, 332-339.
- Moseley, M., & Jones, A. (1991). Contracting for visitation with families. Dimensions of Critical Care Nursing, 10, 364-371.
- O'Neill-Norris, L., & Grove, S. (1986). Investigation of selected psychosocial needs of family members of critically ill adult patients. Heart & Lung, 15, 194-199.
- Polit, D., & Hungler, B. (1991). Nursing research: Principles and methods (4th ed.). Philadelphia: J. B. Lippincott.
- Rodgers, C. D. (1983). Needs of relatives of cardiac surgery patients during the critical care phase. Focus on Critical Care, 10, 50-55.

- Rosenberg, C. E. (1987). The care of strangers. New York: Basic Books.
- Rukholm, E., Bailey, P., Coutu-Wakulczyk, G., & Bailey, W. B. (1991). Needs and anxiety levels in relatives of intensive care unit patients. Journal of Advanced Nursing, 16, 920-928.
- Simpson, T. (1991). Critical care patients' perceptions of visits. Heart & Lung, 20, 681-688.
- Spatt, L., Ganas, E., Hying, S., Kirsch, E., & Koch, M. (1986). Informational needs of families of intensive care patients. Quality Review Bulletin, 12, 16-21.
- Spielberger, C. D. (1966). Anxiety and behavior. New York: Academic Press.
- Spielberger, C. (1972a). Anxiety as an emotional state. In C. D. Spielberger (Ed.), Anxiety: Current trends in theory and research (Vol. I, pp. 23-39). New York: Academic Press.
- Spielberger, C. (1972b). Conceptual and methodological issues in anxiety research. In C. D. Spielberger (Ed.), Anxiety: Current trends in theory and research (Vol. II, pp. 481-493). New York: Academic Press.
- Spielberger, C. (1972c). Current trends in theory and research on anxiety. In C. D. Spielberger (Ed.), Anxiety: Current trends in theory and research (Vol. I, pp. 3-19). New York: Academic Press.
- Spielberger, C. D., Gorsuch, R., Lushene, R., Vagg, P., & Jacobs, G. (1983). Manual for the State-Trait Anxiety Inventory (Form Y). Palo Alto, CA: Consulting Psychologists Press.
- Stillwell, S. B. (1984). Importance of visiting needs as perceived by family members of patients in the intensive care unit. Heart & Lung, 13, 238-242.
- Titler, M., Cohen, M., & Craft, M. (1991). Impact of adult critical care hospitalization: Perceptions of patients, spouses, children, and nurses. Heart & Lung, 20, 174-182.

- Waltz, C. F., Strickland, O. L., & Lenz, E. R. (1991). Measurement in nursing research (2nd ed.). Philadelphia: F. A. Davis.
- Washington, G. T. (1990). Trust: A critical element in critical care nursing. Focus on Critical Care, 17, 418-421.
- Woolley, N. (1990). Crisis theory: A paradigm of effective intervention with families of critically ill people. Journal of Advanced Nursing, 15, 1402-1408.
- Younger, S. J., Coulton, C., Welton, R., Juknialis, B., & Jackson, D. L. (1984). ICU visiting policies. Critical Care Medicine, 12, 606-608.
- Zetterlund, J. (1971). An evaluation of visiting policies for intensive and coronary care units. In M. Duffy, M. H. Anderson, & B. S. Bergerson (Eds.), Current concepts in clinical nursing (Vol. 3, pp. 316-325). St. Louis: C. V. Mosby.

APPENDIX A

Human Subjects Review Committee Approval

TEXAS WOMAN'S UNIVERSITY
BOX 23717, TWU STATION
DENTON, TEXAS 76204

1810 INWOOD ROAD
DALLAS PARKLAND CAMPUS

HUMAN SUBJECTS REVIEW COMMITTEE

Name of Investigator: Carole A. Orlen, R.N. Center: Dallas

Address: 2124 Rose Hill Road Date: June 23, 1992
Carrollton, Texas 75007

Dear Ms. Orlen:

Your study entitled Visitation in the Intensive Care Unit: Satisfaction with Limited and Unlimited Visiting Hours and anxiety Levels of Patients' Wives.

has been reviewed by a committee of the Human Subjects Review Committee and it appears to meet our requirements in regard to protection of the individual's rights.

Please be reminded that both the University and the Department of Health, Education, and Welfare regulations typically require that signatures indicating informed consent be obtained from all human subjects in your studies. These are to be filed with the Human Subjects Review Committee. Any exception to this requirement is noted below. Furthermore, according to DHEW regulations, another review by the Committee is required if your project changes.

Any special provisions pertaining to your study are noted below:

----- Add to informed consent form: No medical service or compensation is provided to subjects by the University as a result of injury from participation in research.

----- Add to informed consent form: I UNDERSTAND THAT THE RETURN OF MY QUESTIONNAIRE CONSTITUTES MY INFORMED CONSENT TO ACT AS A SUBJECT IN THIS RESEARCH.

----- The filing of signatures of subjects with the Human Subjects Review Committee is not required.

-Page-2

----- The filing of signatures of subjects with the
Human Subjects Review Committee is not required.

----XX----- Other: To the explanation of rights make the
following alterations:

1. Page 7. Convert anxiety and cope to simpler
lay terms. (cope = deal with)
2. Right to a benefit from participation in
study not sufficiently addressed. On page 7
a statement such as "you may not benefit
directly from participation in the study but
the knowledge gained - - - etc".
3. Page 9. Remove the coercive statement from
the last sentence. "Thank you for your time."
is the official end of the presentation.
statements.

----- No special provisions apply.

Sincerely,

Lois Hough

Chairman, Human Subjects
Review Committee

at Dallas

APPENDIX B
Agency Permission Form

TEXAS WOMAN'S UNIVERSITY
COLLEGE OF NURSING

AGENCY PERMISSION FOR CONDUCTING STUDY*

THE

GRANTS TO Carole A. Orlen

a student enrolled in a program of nursing leading to a Master's Degree at Texas Woman's University, the privilege of its facilities in order to study the following problem.

Visitation in the Intensive Care Unit: Satisfaction with Limited and Unlimited Visiting Hours and Anxiety Levels of Patients' Wives

The conditions mutually agreed upon are as follows:

1. The agency (may) (may not) be identified in the final report.
2. The names of consultative or administrative personnel in the agency (may) (may not) be identified in the final report.
3. The agency (wants) (does not want) a conference with the student when the report is completed.
4. Other

8/11/92 Date Signature of Agency Personnel
Carole A. Orlen Signature of Faculty Advisor
Signature of Student Signature of Faculty Advisor

- * Fill out & sign 3 copies to be distributed:
Original: Student, 1st copy: Agency
2nd copy: TWU School of Nursing

APPENDIX C

Graduate School Permission to
Conduct Study

TEXAS WOMAN'S UNIVERSITY
DENTON DALLAS HOUSTON
THE GRADUATE SCHOOL
P.O. Box 22479, Denton, Texas 76204-0479 817/898-3400



August 29, 1992

Ms. Carole Anne Orlen
2124 Rose Hill Rd.
Carrollton, TX 75007

Dear Ms. Orlen:

I have received and approved the Prospectus for your research project. Best wishes to you in the research and writing of your project.

Sincerely yours,

Leslie M Thompson

Leslie M. Thompson
Associate Vice President for Research
and Dean of the Graduate School

dl

cc Dr. Rose Nieswiadomy
Dr. Carolyn Gunning

APPENDIX D

Explanation of Study, Time 1 and 2

TEXAS WOMAN'S UNIVERSITY
College of Nursing

Date

What You Would be Asked to Do in My Study
and an Explanation of Your Rights
(Time 1)

My name is Carole Orlen. I am a registered nurse working on my master's degree in nursing at Texas Woman's University in Dallas, Texas. I am conducting a research project as part of my graduate studies. The purpose of the project is to investigate the level of worry experienced by wives whose husbands are hospitalized in intensive care units, as well as their satisfaction with visiting hours. You have been identified by the nursing staff in your husband's intensive care unit as a possible participant in my study. You may not benefit directly from participation in the study, but the knowledge gained will contribute to an understanding of how wives deal with the hospitalization of their spouses. The findings of this study may also be utilized for publication in a professional nursing journal. I would greatly appreciate your participation in my study.

If you agree to participate you will be asked to complete one short questionnaire when we first meet and the same questionnaire approximately 48 hours later. At that time you will also be asked to answer some questions about

yourself, such as how long you have been married. Also, you will be asked to indicate how satisfied you are with the visiting hours. It will take approximately 5 to 10 minutes to complete each questionnaire.

Upon completion of the questionnaires, I will write your name in a log book and give you a code number. That code number will be placed on each of the questionnaires that I receive from you. This will enable me to match your first questionnaire with the second one for purposes of comparing your answers at these two times.

The log containing your name will be kept in my possession at all times to maintain confidentiality of your responses to the questionnaires. The log will be destroyed after the results are analyzed.

Participation is voluntary. If you do not wish to participate, this decision will not affect the care that your spouse receives. The discomforts associated with this study are the time required to complete the questionnaires on two separate occasions, any anxious feelings that might arise when completing the questionnaires, and the possibility that your name might become known to others. I will remain in the area to allay feelings of anxiety if necessary. You may discontinue your participation at any time during the study.

You may contact me at 214/394-4832 for answers to questions you may have about the study. Copies of the results of the study will be available in about 6 months (March 1993) in the office of the Special Care Units on the second floor.

Having heard (or read) this description of the study, if you want to participate in the study, please ask for the consent form. Read the consent form carefully. If you agree to everything on the consent form, please sign it and you will then be part of the study.

If you DO NOT want to participate in this study, you do not need to do anything more.

Thank you for your time.

Carole A. Orlen, RN

TEXAS WOMAN'S UNIVERSITY
College of Nursing

Date

What You Would be Asked to Do in My Study
and an Explanation of Your Rights
(Time 2)

It has been approximately 48 hours since you filled out my first questionnaire. At this time, I would like you to fill out the same questionnaire as the first, as well as answer some questions about yourself, such as how long you have been married. You may refuse to answer personal questions on the second questionnaire.

You are under no obligation to continue in this study. The risks remain as before, in that you may feel anxious in filling out the questionnaires or your name may become known. I will maintain strict confidentiality with the log which has your name in it and upon completion of the study it will be destroyed.

If you wish to discontinue your participation at this time, just let me know. The care of your spouse will not be affected in any way.

Thank you for your time.

Carole A. Orlen, RN

APPENDIX E

Demographic Data Questionnaire

Demographic Data Questionnaire

Please place a checkmark (✓) before the appropriate response:

Age:

_____ 20-29
_____ 30-39
_____ 40-49
_____ 50-59
_____ 60-69
_____ 70-79
_____ 80-89

Has your spouse ever been hospitalized for this type of illness before:

_____ yes
_____ no

How long have you and your spouse been married to each other?

_____ less than 2 years
_____ 2-5 years
_____ 6-10 years
_____ 11-15 years
_____ 16-20 years
_____ greater than 20 years

How satisfied are you with visiting hours on the unit in which your husband is hospitalized? Please place a mark on the line below that indicates the degree of satisfaction. The far left end represents complete dissatisfaction and the far right represents complete satisfaction.

complete
dissatis-
faction

complete
satis-
faction

APPENDIX F

Spielberger State-Trait Anxiety Inventory

Information regarding this copyrighted instrument may
be obtained from:

Consulting Psychologists Press, Inc.
3803 E. Bayshore Road
Palo Alto, CA 94304