

**VISITATION NEEDS OF PATIENTS AND THEIR FAMILIES  
IN THE CORONARY CARE UNIT**

by

Laura Wagner Crum

Submitted to Salisbury State University  
in conformity with the requirements for the degree of  
Master of Science in Nursing  
Salisbury, Maryland

1991

SALISBURY STATE UNIVERSITY SCHOOL OF NURSING

This is to verify that Laura Crum  
successfully defended her Master's thesis entitled Visitation Needs of Patients and  
Their Families in the Coronary Care Unit  
on May 9, 1991.

Members of Thesis Committee:

Homer W. Austin, Chm.

Karla E. Johnson

Susan Battistoni

## ABSTRACT

The purpose of this study was to identify the perceived visitation needs of patients with myocardial infarctions (MIs) and their families and to determine if they differed from one another. The needs of patients and families with prior experience with a CCU were compared to determine if their needs differed from those without previous experience. The visitation needs of patients with a history of MI were also compared to determine if any difference existed between the two groups. A comparison was also made between males and females to determine if sex influenced visitation needs. The need for patients and families to regulate visitation was also examined.

The study population consisted of a convenience sample of 32 patient-family pairs with all patients being hospitalized in a Coronary Care Unit (CCU) with a confirmed diagnosis of MI.

A nonexperimental, descriptive study was utilized for this study. Information on patient and family visitation needs was obtained by using a modified version of a questionnaire developed by Susan Boykoff (1986). Mean values were computed for all items on the questionnaire. The top five needs for patients and families were the same although in a slightly different order. This demonstrated a general congruence between patient and family needs indicating these are primary visitation needs. A t-test indicated that patients and families rated one need significantly different. This was the need to allow only family members to visit in the CCU, with families rating the need as more important. The need to allow friends to visit in CCU was rated as the least important need by both patients and families.

Gender was found to have a minimal effect on the rating of

visitation needs, while CCU experience was not found to influence this rating. History of a prior MI was found to influence the need to have nurses respond to families' phone calls, with those with no previous MI rating this need as more important. Regulation of visitation was not found to be a high ranking need by either patients or families in this study. However, comments on the questionnaires indicate patients and families desire individualization of visitation.

Further investigation is needed in order to examine if differences in age, race, or ethnicity influences the visitation needs of patients and their families. Replication of this study is urged in order to further explore and help meet the visitation needs of CCU patients and their families.

## ACKNOWLEDGEMENTS

First, I would like to thank my thesis advisor, Dr. Karin Johnson, who provided me with much encouragement, editorial guidance, and her neverending patience. I would also like to thank the other members of my thesis committee, Susan Battistoni, RN, MS, and Dr. Homer Austin for their help in this endeavor.

My deep appreciation goes to my family and friends who have been extremely understanding during this very hectic past year. I especially would like to thank my parents for their help in watching my son, T.J., so this thesis could be completed.

Last, but not least, my special thanks goes to my husband, Michael, without whose love and support none of this would be possible.

## TABLE OF CONTENTS

	<u>Page</u>
<b>CHAPTER I - INTRODUCTION</b> .....	1
<b>CHAPTER II - REVIEW OF LITERATURE</b> .....	4
Introduction .....	4
Early Studies of the Needs of Spouses of Critically Ill Patients .....	4
Studies of the Needs of Families of Critically Ill Patients .....	6
Studies of Families' Needs Compared to Nurses' Perceptions of Their Needs .....	11
Studies of Visitation Needs of Critical Care Patients and Their Families .....	18
Studies of Flexible or Open Visiting Policies in the Critical Care Unit .....	29
Studies of Individualized Visitation Policies in Critical Care Areas .....	33
Summary .....	39
<b>CHAPTER III - METHODOLOGY</b> .....	41
Introduction .....	41
Theoretical Framework of the Study .....	41
Assumptions Based on the Theoretical Framework .....	46
Problem Statement .....	46
Research Questions .....	47
Concepts and Operational Definitions .....	47
Research Design .....	48
Study Population .....	49
Study Sample .....	49
Study Variables .....	50
Instrumentation .....	51

	<u>Page</u>
Data Collection .....	52
Method of Data Analysis .....	54
Ethical Implications .....	55
Assumptions and Limitations of the Study .....	55
<b>CHAPTER IV – DATA ANALYSIS .....</b>	<b>57</b>
Introduction .....	57
Description of the Study Sample .....	57
Instrument .....	59
Perceived Patient and Family Visitation Needs .....	61
Variables Effecting Patient and Family Visitation Needs .....	64
Sex .....	64
CCU Experience .....	64
History of a Previous MI .....	69
Regulation of Visitation .....	69
Summary .....	75
<b>CHAPTER V – SUMMARY .....</b>	<b>76</b>
Introduction .....	76
Discussion of the Study Findings .....	76
Patient and Family Visitation Needs .....	76
Variables Effecting Patient and Family Visitation Needs .....	80
Sex .....	80
CCU Experience .....	81
History of Previous MI .....	82
Regulation of Visitation .....	83
Questionnaire Comments .....	85

	<u>Page</u>
Limitations of the Study .....	86
Sample Size .....	86
Sample of Convenience .....	86
Self-report .....	86
Cross-sectional Design .....	87
Implications for Nursing .....	87
Recommendations .....	88
Suggestions for Further Research .....	88
Summary .....	89
<b>APPENDIX 1</b> .....	<b>90</b>
Disclosure Form .....	91
<b>APPENDIX 2</b> .....	<b>92</b>
Committee on Human Volunteers Approval .....	93
<b>APPENDIX 3</b> .....	<b>94</b>
Peninsula General Hospital Medical Center Research Committee Approval .....	95
<b>APPENDIX 4</b> .....	<b>96</b>
Permission for the Use of Portions of Susan Boykoff's Instrument .....	97
<b>APPENDIX 5</b> .....	<b>99</b>
Visitation Needs Questionnaire .....	100
<b>REFERENCES</b> .....	<b>102</b>
<b>CURRICULUM VITAE</b> .....	<b>108</b>

## LIST OF TABLES

	<u>Page</u>
Table 1 - Characteristics of Sample Subjects .....	58
Table 2 - Factor Analysis: Factor Loadings for Identified Factors .....	60
Table 3 - Rank Importance of Visitation Needs .....	62
Table 4 - Differences in Visitation Needs by Sex .....	65
Table 5 - Differences in Visitation Needs Based on CCU Experience .....	67
Table 6 - Differences in Visitation Needs Based on History of a Previous MI .....	70
Table 7 - Ratings for Question 22: Patient Regulation of Times of Visits .....	72
Table 8 - Ratings for Question 23: Patient Regulation of the Number of Visitors .....	73

## CHAPTER I

### INTRODUCTION

Coronary Care Units (CCUs) have been in existence since the 1960's as a means to prevent death or cardiac compromise as a result of arrhythmias, most commonly following a myocardial infarction (MI) (Lynch, Thomas, Mills, Malinow, and Katcher, 1974). Although a calm, quiet environment is a goal of a CCU, intravenous lines, constant cardiac, and possibly invasive monitoring, can create a very frightening environment.

The most common reaction to an MI is anxiety (Zetterlund, 1971). The degree of anxiety individuals experience is determined by their assessment of the danger and the ability to overcome the threat (Zetterlund, 1971). Anxiety is greatest when the threat is unknown and ways on conquering it are also unknown. Persons experiencing an MI have a multitude of potential threats they may realize. The fear of death, fear of the unknown, and potential alterations in roles name only a few. Since no person exist in a vacuum, these threats also impact on the patient's family or social support system (Zetterlund, 1971). For this reason it is advocated that the focus of care be directed at both the patient and the family (Dockter, et al, 1988).

The recovery and rehabilitation of MI patients depends not only on their physical care but also on their psychosocial well being (Zetterlund, 1971). In spite of this knowledge, it was not until the late 1970's that the psychological needs of patients and their families were considered (Boykoff, 1986). Since then, studies have been conducted which have identified needs specific to the family with a critically ill relative, with the Intensive Care Unit (ICU) as the typical setting

(Daley, 1984; Freismuth, 1986; Leske, 1986; Molter, 1979; Norris and Grove, 1986). The need to be with their loved one was identified as a primary need of patients and their families within both the ICU and CCU settings (Boykoff, 1986; Freismuth, 1986; Heater, 1985; Leske, 1986; Stillwell, 1984). Satisfying this need may not be possible due to policies of restrictive visiting in the ICU and CCU settings.

While there have been conflicting results concerning visits by family members with critically ill patients (Brown, 1976; Fuller and Foster, 1982), recent research demonstrates the importance of the family on a patient's recovery (Bay, Kupferschmidt, Opperwall, and Apeer, 1988; Heater, 1985). In spite of this, visiting restrictions remain in most critical care areas (Kirchoff, 1982; Stockdale & Hughes, 1988; Youngner, Coulton, Welton, Juknialis, & Jackson, 1984). These restrictions are a result of suggestions made by the United States Public Health Service in 1962, for Intensive Care Units, and in 1965 for Coronary Care Units (United States Department of Health, Education & Welfare, Public Health Service, 1962, 1965). Hourly, five minute visits, depending on the patient's condition and the nursing unit's ability to handle visitors, were recommended for CCUs. Research reveals there are wide variations concerning the length of visits and number of visitors, but consistency exists in the lack of individualization of visiting policies (Kirchoff, 1982; Stockdale & Hughes, 1988). A review of the literature indicates that nurses are frequently the ones enforcing and supporting the idea of restricted visiting (Heater, 1985; Johnson, 1988; Kirchoff, 1982). Nurses cite preventing physiologic complications and promoting rest as primary reasons for visitation restrictions, yet this has not been substantiated in the literature

(Heater, 1985; Sickbert, 1989). Not only do these policies isolate patients from their families, but they may not be therapeutic for either patients or families (Prins, 1989; Walker, 1972). Increased patient participation in decisions affecting their care has also led to questions concerning the appropriateness of such limits (Dracup & Brey, 1978; Kirchoff, Hansen, Evans & Fullmer, 1985; Sime & Kelly, 1983).

Presently, research concerning the visitation needs of patients and their families in the CCU is lacking. Since visiting policies were created to benefit the patient, it is important to know if they are indeed helping or hindering recovery (Boykoff, 1986; Freismuth, 1986; Hamner, 1990). Meeting the needs of the individuals, as well as the family, is an important component in this process (Boykoff, 1986; Heater, 1985; Sickbert, 1989).

The purpose of this study was to identify the perceived visitation needs of patients with myocardial infarctions (MI) and their families and to determine if they differed from one another. The needs of patients and families with prior experience with a CCU or prior MI were compared to determine if their needs differed from those without previous experience, as this has not been identified in the literature. Developing an awareness of patients' and families' visitation needs will aid health professionals in addressing and satisfying these needs. It is also hoped the findings will be utilized in a review and/or revision of present visiting policies.

## CHAPTER II

### REVIEW OF LITERATURE

#### Introduction

Studies of the needs of patients and their families were nonexistent until the 1970's. While the number of these studies has increased over the last several years, the number of studies which focus specifically on visitation needs of patients and their families in the critical care unit remains scant. An even smaller number of studies have looked at visitation needs of patients in the Coronary Care Unit and their families. In this chapter, the studies of the needs of spouses of critically ill patients will be examined first, followed by the studies which focused specifically on visitation needs of both critically ill patients and their families. Studies of visitation policies in critical care units will then be reviewed and the literature review concluded with studies of individualized visitation.

#### Early Studies of the Needs of Spouses of Critically Ill Patients

Hampe (1975) pioneered the study of needs of family members with her research on spouses of terminally ill patients. The purpose was to determine if the spouses could recognize their own needs, and in conjunction with this, if they perceived nurses as having helped them meet their needs. Twenty-seven spouses whose mates were hospitalized with a terminal prognosis were interviewed. Eighteen of the terminally ill mates subsequently died. Of those widowed spouses, 14 had a second interview.

Eight needs were subsequently identified by Hampe (1975). As ranked, they were: (1) to be with the dying person; (2) to be helpful to the dying person; (3) to be informed of the mates condition; (4)

to receive assurance about the comfort of the dying person; (5) to be informed of impending death; (6) to ventilate one's emotions; (7) to receive comfort and support from the family members; and (8) to receive acceptance, support, and comfort from health professionals (Hampe, 1975). Twenty-five of the spouses identified all eight needs. The other two identified five and seven needs, respectively. Spouses did not feel their personal needs should be of concern to the health care professionals. Rather, the focus should be on caring for the terminally ill patient. Interestingly, spouses in Hampe's study were allowed to be with the patient as frequently as they desired, and this was also rated as their number one need. However, in the evaluation of whether these needs were being met, the nurse was not identified as having helped. Unfortunately, what the visiting policy was for the particular unit was not mentioned. One would wonder if it was an "open" policy or perhaps an unwritten policy for terminally ill patients. If this were the case and all nurses complied, this would explain why spouses did not view nurses as having helped meet their need to be with the patient.

In order to gather more information on the needs of families, Hampe (1975) suggested the conduction of a similar study with a focus on spouses of acutely ill patients. Additional studies have since been undertaken which were concerned with the needs of patients and their families in various settings.

Dracup and Breu (1978) conducted a study similar to Hampe's (1975) but looked at the needs of spouses of the critically ill in a CCU. The researchers identified the same eight needs as Hampe plus the additional need of relief from anxiety. They specifically identified the importance

of the nurse talking with spouses, away from the bedside, and keeping them informed.

As opposed to the spouses in Hampe's (1975) study, the spouses in Dracup and Breu's (1978) study were restricted in their visitation. In order to meet the need to be with the patient, Dracup and Breu advocated individualized visiting hours as part of the plan of care. They reported that before such a policy was introduced into the plan of care, only 24 percent of spouses felt the need to be with their mate was met; after implementation, 92 percent felt this need was met. This lends support to relinquishing restricted visiting for the family's satisfaction, but the ultimate test would be if the patient's needs were also met.

#### **Studies of the Needs of Families of Critically Ill Patients**

Molter (1979), built on Hampe's (1975) study to determine the needs of relatives of critically ill patients. She proposed that assessment and intervention could best be done if the needs of the families of the critically ill patient were known. An exploratory, descriptive study utilizing 40 relatives of critically ill patients attempted to identify needs specific to the family. She defined critically ill patients as "those patients who have spent at least three days in an intensive care unit and have been on a general ward area for 48 hours or less" (Molter, 1979, p. 333). Those families whose relative was a patient in a special care unit, such as a burn or renal unit, were excluded from the study as the author believed they would have special needs due to the potential chronicity and care given on those units.

Molter stated she used a structured interview as her means of

data collection. After a review of literature and a survey of 23 graduate nursing students, she identified 45 potential needs. Her data collection procedure was to read each of the need statements to the participants, and then have them rank the need on a scale of 1 to 4, from not very important to very important. The participants were then asked if the need was met, and if so by whom. After this, the interviewees were asked if any other needs had not been covered.

Molter's results were similar to Hampe's (1975), with the first ten needs identified by the families being: (1) to feel there is hope; (2) to feel hospital personnel care about the patient; (3) to have the waiting room near the patient; (4) to be called at home about changes in the condition of the patient; (5) to know the prognosis; (6) to have questions answered honestly; (7) to know specific facts concerning the patient's prognosis; (8) to receive information about the patient care once a day; (9) to have explanations given in terms that are understandable; and (10) to see the patient frequently (Molters, 1979). No other needs were identified by relatives.

Molter (1979), as Hampe (1975), also addressed if needs were met, and if so, by whom. As opposed to Hampe's findings, Molter found the need for assurance of the patient's comfort was completely met. She suggested this could be because there is a chance of recovery with the critically ill versus the terminally ill as in Hampe's study.

As Hampe (1975) found, relatives in this study also did not feel it was the health care professionals' responsibility to meet their needs. They believed the focus needed to be on the patient. This attitude was distressing to Molter (1979), as she did not feel holistic care could be given if the family was not included in patient care.

The importance of the needs of families being included in order to provide holistic care was, again, proposed by Daley (1984). She used a similar approach to that of Molter (1979) to further study the needs of family members of critically ill patients. Her sample size was identical to Molter's with similar criteria used to define the family member of a critically ill patient. Two potentially significant differences were that: (1) she interviewed the family member within 72 hours after admission to the ICU; and (2) the admission to ICU had to be the first for the patient.

Daley (1984) also used a structured interview approach consisting of 46 need statements. These were developed from a review of literature and her own personal experience. She further delineated those need statements into six major categories of: personal needs, the need to decrease anxiety, the need for support and ventilation, the need for information, the need to be with the patient, and the need to be helpful (Daley, 1984).

The need for anxiety relief was ranked highest, which was consistent with the results of Dracup and Brey's (1978) study. The need for information, assurance of hope, knowledge of the changes in patient's condition, and information about the type of care also ranked high in this as well as other studies (Gardner and Stewart, 1978; Hampe, 1975; Molter, 1979).

Again, the need to be with or near the patient was identified as important. All items dealing with this need were rated at the 3.5 level or higher (out of possible 4.0), indicating its importance. As with Hampe's (1975) and Molter's (1979) studies, "personal needs" were rated the lowest. To summarize, Daley (1984) found that in the 72

hour time period after admission to ICU, families were most interested in being kept informed of the patient's condition, speaking to the doctor, and obtaining assurance that their relative was receiving the best care possible. They were least concerned with being alone, having friends or children visit, or having personal items, such as food or coffee available.

In contrast to earlier studies, this study found that the need for support and ventilation as well as the need to be with the patient were not as important as receiving as much information as possible about the patient (Dracup and Breu, 1978; Hampe, 1975). While the individual item "to be with my family member in the ICU" ranked high (3.825 out of 4) among the overall needs, the category "need to be with the patient" was not as significant as the need for support and relief of anxiety. This discrepancy was identified as a need for further study. Daley (1984) hypothesized that the need to be with the patient might be decreased if information was made available. She did acknowledge that the small sample size and method of data collection may have affected the applicability of her results.

Leske (1986) replicated Molter's (1979) study to determine if similar needs were identified. In order to do this, she collaborated with Molter to change the order of her need statements, but used the same 45 statements. An open-ended question was also written to identify any new needs not previously reported. This was completed to create the Critical Care Family Needs Inventory (CCFNI) (Leske, 1986). Utilizing this tool, Leske interviewed family members, either in the Emergency Room or in the ICU, within 72 hours of the relative's admission. Similarly to Molter, Leske read the statements to the family

members and recorded the importance of each statement based on the group consensus. The families then ranked the need statements.

The results were consistent with those found by Molter (1979) and others (Daley, 1984; Hampe, 1975). All relatives could easily identify the importance of their needs and no new needs were identified. Leske (1986) did address the fact that varying times for data collection could have affected the results. All relatives completed the tool within two days of admission with five of them completing it immediately after the patient's admission to the ICU. Considering that these family members all denied previous ICU experience, it is unlikely they would be able to immediately identify their needs in an unfamiliar and unexpected situation. Leske also addressed a potential distracter since the diagnosis for the relatives were all traumatic and/or violent. Repeat administration of the CCFNI after the patient was transferred out of ICU could clarify this.

Leske's (1986) results were essentially consistent with Molter's (1979), although there were a few procedural differences in their data collection which may account for some of the variation. The needs were found to be ranked similarly to Molter's. Possible explanations for the slight differences may be in the time variable for interview since Molter waited until the patient was transferred to a general area. Also, Molter used individual responses to each need statement, whereas Leske used a consensus. Ranking may have been affected as individual differences in the group may have been missed. A replication of this study was urged in order to assess the reliability of the CCFNI. Further studies were also suggested to investigate the "primary" needs which were consistently surfacing as important to family members of

the critically ill.

### Studies of Families' Needs Compared to Nurses' Perceptions of Their Needs

At the same time as Leske (1986) replicated Molter's (1979) study, Norris and Grove (1986) also fashioned a similar study. They expanded on Molter's study by identifying nurses' perceptions of families' psychosocial needs. The perception of the ICU nurses concerning these needs was identified as significant, since a large amount of energy could be expended trying to meet non-existent or inaccurate needs.

Molter's (1979) 45 need statements were administered to a pilot study of five nurses and five family members of critically ill adult patients. From this, the lowest ranked need was to visit at anytime with the highest being to talk daily to the doctor. The questionnaire was reduced from 45 to 30 questions based on median scores from the pilot study.

A convenience sample of 20 ICU nurses and 20 family members was obtained. Only one family member per patient was utilized in order to obtain the largest possible representation of patients' families. A sampling from each of six ICU's was obtained but the proportion of participants from each one was not given. Norris and Grove's (1986) method of data collection was slightly different from Molter's (1979) in that one investigator approached the family at least 48 hours after admission to ICU rather than after the transfer out. Another difference was that identical questionnaires along with written and verbal instructions were left with the family member and nurse.

The rank importance of needs was found to be similar to Hampe's (1975) and Molter's (1979). The need to see the patient frequently

was still ranked in the top ten in importance. The need to feel there was hope was still ranked first.

From theirs and other relevant studies (Daley, 1984; Dracup and Breu, 1978; Hampe, 1975; Molter, 1979), Norris and Grove (1986) identified the need for hope, honest information, and a caring attitude as of greatest importance. The need to have visiting hours changed for special conditions was ranked as the least important, consistent with Molter's (1979) study. This was attributed to the family members' feeling that the patient needed to be cared for first; they could wait to visit. An analysis of variance indicated that the needs perceived by nurses were different than those perceived by the family members. Nurses gave less importance to providing information and hope than did family members.

A point that was made was that those needs which were rated least important to family members were related to their feelings and visiting hours. It was pointed out that needs are subjective and must be considered individually when planning care. Because of these differences nurses must be sensitive to cues.

Around the time Molter (1979) conducted her study, Gardner and Stewart (1978) published an article which discussed the lack of staff involvement with families in the critical care setting. While this was not a research article, they did report on the method of family-staff involvement used in their specific trauma unit. Several case studies were given in an effort to demonstrate how their approach was successful and would be useful in any critical care setting. They attributed the increased staff-family interactions on factors such as workload, availability of staff for family members, and staff attitudes regarding

visitation, to mention a few.

Gardner and Stewart (1978) emphasized that a family's acute stresses might be alleviated by supportive care from the staff. As supported by other studies, the importance of the family in the patient's recovery cannot be ignored (Bedsworth and Molen, 1982; Daley, 1984; Dracup and Breu, 1978; Leske, 1986; Molter, 1979). The staff in Gardner and Stewart's article attempted to relieve the family's stresses by providing information and education, encouraging expression of feelings, making interventions so the surroundings were less intimidating, and assessing the family's ability to get adequate rest. These interventions were done in an effort to speed recovery as the staff believed patient cooperation would be obtained quicker through a relative than a strange staff member. The enforcement of restrictive visiting hours would have made this difficult.

The article noted that one potential problem of staff-family interactions may be visitation. Although the hospital's policy was restrictive, nurses in this unit would try to be more flexible depending on unit activity and the patient's condition. If a problem arose, it was generally because some nurses were more flexible than others, creating family resentment toward the less permissive nurse. Although not addressed, there may have also been some resentment toward the more permissive nurse by her co-workers.

A recent study concerning family needs satisfaction versus perceived satisfaction of needs as determined by nurses was conducted by Lynn-McHale and Bellinger (1988). As nurses have the greatest interaction with and potential impact on families, it was deemed important that they be able to correctly identify the importance of family needs in

order to provide more effective care.

Lynn-McHale and Bellinger (1988) utilized a combination of Molter's (1979) and Rodger's (1983) needs questionnaire - giving one to family members and one to nurses. Family members were asked to rate their satisfaction with each of the needs and nurses were asked to rate what they perceived families' satisfaction to be with each need statement.

Based on mean rankings of needs satisfaction of family members and critical care nurses, nurses were moderately able to correctly rate the perceived satisfaction of families' needs. However, on examination of individual items there were specific instances where nurses were inaccurate. For example, nurses rated "to have someone encourage me to cry" as a need that families would highly rate as having been met. Family members actually ranked this at a low level of satisfaction (Lynn-McHale and Bellinger, 1988). Items which nurses rated as having a low level of satisfaction, such as "to be able to visit whenever I want", were ranked relatively high by families (Lynn-McHale and Bellinger, 1988). These are significant differences which should not be ignored.

Generally, family members reported being relatively well-satisfied with those needs that pertained to personal support systems, visitation, and information. Again, these results were in conflict with some studies (Stockdale and Hughes, 1988; Zetterlund, 1971), yet supported others (Boykoff, 1986). The importance of family needs being accurately identified is necessary in order to effectively plan care. Interventions may be inappropriate if needs are inaccurately perceived by the nurse.

Families and ICU nurses' perceptions of needs were compared in a study by Dockter, et al (1988). As others had, they too identified

that the focus of treatment in ICU had primarily been the patient, with little focus on the family. The importance of this support was stressed as it "may facilitate patients' physical health and can be a vital factor in the curative process" (Dockter, et al, 1988, p. 30). However, this support may be thwarted if needs are not met. The purpose of this study was to determine the perceptions of the family's needs and the nurses' perception of those needs.

The results indicated that nurses accurately perceived family needs except that more nurses rated family members as anxious at admission. Also, families and nurses indicated they were satisfied in the category of participation information which included an item of "allowed enough time to visit" (Dockter, et al, 1988). Since the visiting policy and practice of the unit were not identified, it is difficult to interpret this information any further.

Hickey and Lewandowski (1988) conducted a descriptive study to investigate critical care nurses' perceptions of families in the critical care setting. Two hundred and twenty-six critical care nurses from four hospitals participated. Their responses indicated variations in their interpretation and enforcement of visiting policies. Differences occurred both within units and among hospitals.

The results showed that only 39 percent of the sample felt their visiting policy was practiced. Interestingly, a wide variation of different policies was described within 18 units. Seventy "unofficial" policies which were different than the official ones were identified. There was also little consensus as to what the visiting policy should be. These variations would not be present if all patient and family needs were being met by the current written visiting policies. The

variations of these responses support the idea that individualization of visiting should exist, if it does not already.

Also, the majority of critical care nurses in this sample believed frequent visits by the patient's support system to be important for recovery (Hickey and Lewandowski, 1988). Again, individualization of visiting may be an explanation as to why so many variations were described. This is a focus which the authors state needs more research. They state visiting policies should accurately "reflect the philosophy and practice standards in critical care units" (Hickey and Lewandowski, 1988, p. 676). If the philosophy is for stabilization and recovery for the critically ill patient, the importance of the family to recovery should not be ignored.

Another study which examined families' needs in the ICU setting also compared nurses' perception of family needs. Stubbs (1989) utilized a convenience sample of 20 critical care nurses and 40 family members of patients in an ICU. All nurses who worked in the ICU participated. Family members were approached within 72 hours of the patient's admission to the unit. At the initial contact, participants were asked to complete Molter and Leske's (1986) CCFNI (Critical Care Family Needs Inventory) with the researcher returning approximately 25 minutes later to collect the questionnaire.

The top five needs of ICU families as identified by nurses were among the top six identified by the families, although in a different order. This indicated a high degree of conference between nurses and families with regard to the most important needs. The ranking of needs in Stubbs' (1989) study corresponded to those reported by others (Daley, 1984; Leske, 1986; Molter, 1979; Norris and Grove, 1986). Thirteen

needs were found to be significant. From those three categories emerged, one of which was visitation. Although not rated in the top six needs, families did rank visitation needs higher than nurses. The need to see the patient frequently was rated eighth out of 45 needs and the need to visit at any time was ranked thirteenth. Stubbs reinforced that literature has shown visitation to be an area about which nurses should be more aware.

Yamamoto (1990) studied the perceived visiting needs of family members of open heart surgical patients while in the post operative intensive care setting. She utilized a convenience sample of 30 family members (up to two family members for the same patient were accepted) who had visited the patient at least twice in the ICU. Yamamoto utilized a self-reporting questionnaire, consisting of a demographic sheet and a needs questionnaire containing eight need statements and one open-ended statement.

Family members ranked needs relating to direct visitation of their relative as most important. While family members identified the need to see their relative more frequently, to be able to visit at any time or changing visitation times, was rated least important. The author stated this was felt to reflect the family members agreement with the time of day visiting was allowed as opposed to the frequency of visits (Yamamoto, August 2, 1990, personal communication). She also found that age and gender influenced four of the visitation needs related to visiting more frequently, having visiting hours start on time, and having direction from the staff. Consistent with Stillwell (1984), Yamamoto found younger females tended to rate these four visitation needs higher than older females or males. No previous ICU experience

was associated with the family member viewing the patients' condition more gravely. The indication was that nurses need to conduct family assessments prior to the initial visitation as well as an ongoing assessment throughout the hospital stay. The need for nurses to assert and initiate changes in visitation policies to meet family member's needs was emphasized.

### **Studies of Visitation Needs of Critical Care Patients and Their Families**

As of early 1971, visitation needs began to emerge as important to patients and families. As previously discussed, multiple studies have supported that families placed much importance on the need to be with the patient (Daley, 1984; Dracup and Breu, 1978; Hampe, 1975; Leske, 1986). The problem of family-to-patient transmission of anxiety was also mentioned. For this reason Zetterlund (1971) stressed the importance of the family, since the patient's physical and emotional reactions needed to be understood in the context of the family. Because of this awareness, as well as the awareness of negative comments from family members concerning visitation, she conducted a study to evaluate the effectiveness of restricted visiting policies.

The study was conducted in two separate CCU's. On both units, the visiting policy stated that one member of the patient's family could visit for five minutes every hour. In one unit, length of visits varied from five to 50 minutes. In the other hospital, visits were primarily five to ten minutes. One of the ward secretaries' responsibilities was to announce the end of visiting hours and for this reason, some visits continued to last as long as 23 minutes. This was primarily because the ward secretary had other responsibilities, sometimes delaying the announcement. Also, some visitors were reluctant

to leave until told more than once.

Seventeen patients and nine family members were interviewed concerning their satisfaction with the visiting policy. Only five of the patients stated they were satisfied with the existing policy since it allowed them to rest or meet their personal needs, such as using the commode or urinal.

Of the remaining 11 patients who felt five minutes was unsatisfactory, five patients thought ten to 15 minute visits would be adequate in most situations. Some subjects explained that five minutes was not long enough to discuss family concerns and that thinking of the family waiting for 55 minutes was too stressful. One subject related being in CCU to being in a jail; "The policeman comes in and tells the visitor its time to leave as soon as he/she comes in" (Zetterlund, 1971, p. 321). Several patients clarified their statements by saying each patient's condition should affect visiting privileges.

The majority of the family members (seven out of nine) wanted longer visiting periods. All of these mentioned something about visits being regulated based on the patient's condition. Only one agreed with the five minute policy. The other said she "generally" agreed but wanted to stay longer to "just sit with my husband when he was very sick" (Zetterlund, 1971, p. 322).

Another purpose of the study was to determine if visits provoked stress which would be demonstrated in changes in patient's heart rate and rhythm during visits. The results varied depending on the pattern of visiting. Zetterlund (1971) found that in the unit with a more liberal policy, there was a mean increase in heart rate of 10 percent at the beginning of the visit, but the heart rate decreased to the

mean resting rate at the termination of the visit. This suggested when patient and family controlled the length of visits, stress was decreased as evidenced by the decrease in patients' heart rate by the end of the visit.

In contrast, in the unit with a stricter adherence to their visiting policy, the heart rate remained increased between six and seven percent throughout the entire visit without any decrease by the termination of the visit. This would suggest these visits were not conducive to the patient's recovery.

Changes in cardiac rhythm were observed in four patients during visits. Two of these patients were later interviewed and indicated they preferred five minute visits and had had 23 and 40 minute visits. Zetterlund (1971) concluded the arrhythmias were a result of stress indicating that if visits last longer than the patient desires, stress increases as demonstrated by cardiac irritability.

Zetterlund (1971) concluded that individualization of visitation was necessary since some family members may induce stress in the patient, but that it was the right of the family to be with the patient during the critical stages of the illness. She pointed out that before CCUs and ICUs were created, family members often stayed by the bed of the seriously ill patient.

The implications were that one policy should not cover all patients, but should be altered depending on the patient's condition. It was suggested that some control over length of visits be transferred to patients allowing them to have some control in the situation and to help decrease anxiety.

Zetterlund's (1971) study was one of the first to advocate

individualized visitation. Unfortunately, her final suggestions for the need for further studies of visitation went unheeded for many years.

For many years, policies or standards of care have existed in critical care areas without sufficient research on which to base these actions. As previously discussed, many studies have produced conflicting results concerning visiting and the effect on patients.

Following Zetterlund's (1971) study, Walker (1972), conducted a study of ICU open-heart patients. A small sample (four patients) was observed continuously for eight hours during the first, second, and third post-operative days in order to document periods of uninterrupted sleep. It was found that patients' sleep was disturbed at least once every hour, for varying lengths of time, by health care workers. Interestingly, this study was undertaken in a unit whose restricted visiting policy of 15 minutes four times a day was implicitly stated to allow patient rest. In direct contrast to this, Walker found staff, rather than family visitors, to be the greatest source of interruptions to rest. Obviously, restricted visiting was not the means to achieve this goal.

In 1976, Brown published her research in which she studied the effect of family visits on heart rate and blood pressure in 50 patients in the CCU. Her purpose was to determine if visiting was stressful to the patient. She reported a significant increase in systolic blood pressure and heart rate of patients with suspected or known MI during a family visit. She also found that these measurements returned to pre-visit levels after the first visit but by the third visit they remained elevated for a period of time. From these results she concluded the family visiting period of ten minutes every hour was physiologically

stressful for the MI patient and, therefore, not conducive "to good patient management" (Brown, 1976, p. 295). Her final suggestion was to continue studying visiting arrangements in order to determine the best solution. She did not feel discontinuing the visiting period was a solution, although the proponents of strict visiting policies use this research in support of their views.

There were a few flaws in Brown's (1976) research design. The time frame in which these measurements were taken was not given or apparently controlled for - i.e. the length of time the patient had been in the unit before the observations took place. There may have been differences in measurements taken during the first 24 hours after admission as compared to those taken on the second or third day.

Another potential problem was in the data collection. There was no information concerning what the patient was told about the study or if it was routine to take the blood pressure and pulse so frequently. It is feasible that the 27 patients who had three visits recorded, had these all done within a three hour time frame. The increase in anxiety of the patient, perhaps believing something was wrong with him or her necessitating frequent vital signs checks, may have falsely increased these readings.

A similar theory could explain the increased readings during a visit. Patients knowing they had only ten minutes to spend with the visitor had to have this limited time interrupted in order to have their pulses and blood pressures checked. Again, it is not known how this was explained to the patients. The very idea that the nurse wanted to see how the visits were affecting the patient may have been anxiety provoking. This could also account for the decrease after the visit.

Lynch, Thomas, Mills, Malinow and Katcher (1974) studied the effect of visits on cardiac rate and rhythm in CCU patients. A group of 20 patients, who had been admitted to the CCU for a minimum of 12 hours, were observed for any clinical or social interactions for approximately six to eight hours. These observations indicated elevation in both heart rate and frequency of ectopic beats during social interactions. While the authors cautioned they did not wish to imply that all interactions in the CCU cause physiological ill effects, they reported, "These heart reactions can occur during the most routine types of human contact" (Lynch, Thomas, Mills, Malinow, and Katcher, 1974, p. 98). They also correlated sudden death to the abrupt introduction or cessation of human contact, such as when a widower dies shortly after his mate. By the same token, abrupt isolation from one's family was not discussed.

Also, the types of interactions were primarily with nursing/medical staff and not always matched with family members to determine if there was a difference in cardiac effects. Another important factor was also not addressed. This concerned the time variable since ectopics are always greater in the first 72 hours post-MI. The authors did not address whether this could have actually been the cause of the arrhythmia, rather than the social interaction itself.

In a later article, Thomas, Lynch, and Mills (1975) repeated a portion of the previous study, this time only looking at pulse rates. They felt this supported the earlier study in that cardiac activity was affected by routine CCU interactions. However, in this article, they did address why the reaction might occur. It was associated with the patient's perception of the significance of pulse taking. This is not a new concept - just as a person's respirations will increase

if they know you are counting them, so too will a person's pulse. The conclusion reached in this study was the same as their earlier study.

In contrast to these studies, Fuller and Foster (1982) replicated Brown's (1976) study with surgical intensive care unit (SICU) patients and found no increase in stress levels due to family or friend visits. A very sophisticated and thorough study of 28 adult patients was conducted using arterial blood pressure and electrocardiogram tracings to determine heart rate. These data were obtained on four different occasions: just before, at two five minute intervals during, and immediately after interactions. None of the patients had a previous ICU experience. The interactions occurred on the second or third post-operative day.

As opposed to Brown's (1976) study, they wanted to specifically look at the relationship or interaction between the patient and the visitor, as this had not previously been examined. They believed the relationship might contribute to the effect the visit had on the patient. One group of nurses was to spend 15 minutes with the patient with a task focus, while the other was to spend 15 minutes interacting socially with the patient - i.e., talking about family, friends, the weather, etc.

The results of the study found no significant differences in blood pressure or heart rate in any of the situations. However, the measurement of vocal stress before and after negatively and positively scored interactions was found to be significant. A uniformed observer, unbeknownst to the participants, rated all interactions based on a numerical scale (i.e., - 3 for no contact and much distance between them, to + 3 for physical contact like hand holding). Immediately

before and after an interaction, a voice sample was obtained. The results were the same with family visits and nurse groups. All positively rated interactions resulted in a decrease in vocal stress, and vice versa, indicating all positive interactions may decrease stress levels in the patient. The authors also felt stress in the post-surgical patient might present in this fashion as opposed to a cardiovascular response. This argument does not seem to be a reasonable one. If stress provokes a physiological response, it should surface in heart rate and blood pressure in addition to voice stress levels. Furthermore, the condition of the patients, whether post-surgical or post-MI, should not influence the stress response.

While stating they were unable to explain the differences in their study versus Brown's (1976) or Lynch's (1974), they did offer several explanations. One was the inability to generalize when using two different populations as described above. The authors felt this was an important distinction to make, as otherwise they would have unnecessarily restricted family and friend visits in the SICU, believing this would help decrease patient stress.

Other explanations included differences in analysis or collection of the data. While this may be a possibility, great efforts were described as having been taken in order to replicate the study as closely to Brown's (1976) as possible. Also, the potential differences due to interruptions to take manual blood pressures and pulse rates which were present in Brown's and Lynch's (1974) studies were mentioned.

The effect of visits on an ICU patient's mental status was the topic of a study by Bay, Kuperferschmidt, Opperwall and Apeer (1988). They did an exploratory study in order to determine if mental status

changed as a result of: (1) the effect of a visit; (2) family closeness; and (3) family anxiety. They found there was no significant difference in mental status after a family member visit or as a result of family anxiety. Analysis of variance did indicate if family members saw themselves as having moderate amounts of mutuality with the patient, they were able to positively influence the patient as evidenced by an improved patient mental status after the visit. However, this did not hold true for those having high or low levels of mutuality. The authors encouraged nurses to assess the patient's mental status before and after a family member's visit to determine how the visit affected the patient's mental status. With this in mind, specific appropriate nursing interventions could be planned with the focus being holistic care of the patient. This was noted to mean inclusion of the family - something which is difficult with restricted visiting.

In still another population, Prins (1989) conducted a study on the effect of the family visits on intracranial pressure (ICP). Again, the purpose was to determine if visiting produces harmful effects. This is especially critical if it increased ICP, since only a slight increase can cause permanent damage. Therefore, in order to provide a safe environment for the patient, it was felt nurses needed to be aware of the effects of family visits.

It was stated that there was no research to conclude that visiting increased ICP, yet this was the purpose of restrictive visiting policies (Prins, 1989). The author felt patients and families were isolated needlessly and conducted a small study composed of 15 patients and 47 patient-family interactions. The findings suggest that although there was no significant decrease in ICP during family visits, the

fact that ICP did not increase was significant. The conclusion was that restrictive visiting in a neurological ICU may not be necessary in order to prevent increased ICP.

In another study of ICP, Bruya (1981) found that intercranial pressure almost always decreased when a significant other visited, approached the bed, or touched the patient. As a result of this finding, the suggestion was made to encourage the significant other to visit more frequently than the routine visiting hours.

Stillwell (1984) conducted a study similar to Molter's (1979) except she specifically looked at visitation needs of family members who had a relative in the ICU. Again, the lack of research supporting restricted visitation, coupled with conflicting results on the effects of visits on patients, led her to probe this issue. She examined the relationship between personal characteristics, hospital experiences, social support, and the families' visitation needs specific to the ICU environment.

Stillwell (1984) used eight visitation-related need statements from Molter's (1979) questionnaire and added a ninth one concerning the need for privacy, since the ICU consisted of an open room with curtains separating the patients. A convenience sample of 30 family members was obtained. Each participant was approached within 36 hours after the ICU admission and asked to rank each of the visitation needs statements as to its importance.

The only variable found to influence the ranked importance of "the need to see my relative frequently" was the family's perception of the condition of the patient. The more critical the family believed the patient to be, the greater the importance to visit frequently.

The two visiting needs found to be of greatest importance were

the need to see the relative whenever desired and the need to see the patient frequently. The need to see the patient whenever desired tended to be influenced by age, although this was not found to be statistically significant. Younger family members tended to rank this need higher.

Stillwell (1984) concludes that much of the frustration and stress which families experience during a critical illness could be eliminated if critical care nurses would help change existing visiting policies which do not meet the needs of patients or their families. She further states that the data from her study indicates open or flexible visiting hours are needed in critical care areas.

Susan Boykoff (1986) studied visitation needs as reported by patients with cardiac disease and their families. While she did not define what her eligibility criteria were other than "cardiac disease", her study did elaborate on visitation needs. She identified a deficit in earlier visitation studies as neglecting families' visitation needs and how they compared to the patients' needs and preferences. She saw this as important when visitation policies and enforcement were viewed since they could impact on patient and family experience in a medical ICU.

Using a qualitative interview approach, she first determined visitation themes. She then developed a questionnaire which was administered to a different group to assess the importance of perceived patient and family needs. Twenty patients and eleven family members participated in the study. All patients were admitted to rule out MI and all were found to be positive for an MI. The amount of time in the MICU before the questionnaire was given varied which the author felt was reasonable, in order to obtain a representative sample.

In agreement with other studies, Boykoff (1986) found that subjects rated highly the importance of keeping the family informed of the patients condition (Daley, 1984; Dracup and Breu, 1978; Hampe, 1975; Leske, 1986; Molter, 1979; Norris and Grove, 1986). It was also found that patients and families preferred the nurse to control the number of visitors rather than the times of the visits.

The results indicated a general satisfaction with the existing, restricted visiting policy. This conflicted with Zetterlund's (1971) study in which patients and families identified visiting periods as too brief. Boykoff (1986) addressed this with the explanation that patients and families may not have wanted to criticize policies in the hospital setting since they were still dependent on the staff for care.

#### **Studies of Flexible or Open Visiting Policies in the Critical Care Unit**

A greater satisfaction with visiting needs has been reported when flexible or open visiting was allowed (Freismuth, 1986; Stockdale and Hughes, 1988). Freismuth (1986) investigated visiting policies to determine if they were meeting family needs or if they required changing. She specifically examined the extent to which family needs were met in comparison with restricted versus open visiting policies in the ICU. Her study included a control group composed of 24 family members who were exposed to restricted visiting and an experimental group of 20 subjects who were permitted to open visiting (24 hours a day).

Mean scores of the families' satisfaction of needs were found to be greater for the experimental group than for the control group in 26 of the 30 statements. T-tests indicated a significant difference

( $p < 0.05$ ) in the two groups for four needs which were: (1) to be with the patient more often; (2) to be allowed to visit at anytime; (3) to have someone tell the visitor what he or she is able to do at the bedside; and (4) to know what treatment the patient is receiving. These were ranked in importance similar to other studies, indicating consistency in the needs of the families of the critically ill. A change in visiting policies from restricted to a more open policy would help meet some of these needs.

Sime and Kelley (1983) reported on an earlier unpublished study which implemented a project of giving control of visitation to CCU patients. While they found not all patients wanted to participate, those that did demonstrated decreased anger, anxiety, depression and fatigue in less than 24 hours after implementation. This study indicated that although persons are unable to completely control a stressful situation, providing some opportunity for decision-making allows for beneficial results (Sime and Kelley, 1983; Zetterlund, 1971).

Brannon, Brady, and Gailey (1990) supported Sime and Kelley's (1983) findings in a similar study. Within one month, they had negotiated 80 visiting contracts between patients, family members, and staff. After analysis of these contracts, the researchers found: (1) 66% of the participants selected designated times; (2) 34% wrote in times; (3) 70% selected a total of three hours for visiting; (4) 26% selected less than three hours; and (5) 2½% selected more than three hours. The evaluation of the project at the end of three months supported contractual visitation policy as a way to meet patient and family visitation needs. One hundred percent of patients and family members, as well as 95% of the nursing staff preferred contractual

visitation. Since the trial, this is now the permanent visitation policy within that particular CCU.

The idea of flexible visiting was discussed by Dunkel and Eisendrath (1983). In their report, some problems that had been encountered with flexible visitation, along with some solutions were discussed. These problems and solutions were the result of a flexible visitation program which was initiated at their institution. Specific criteria for the family visiting policy were developed. They included: no more than two family members at the bedside at one time; visitors should not distract from good nursing care; and that it was up to the discretion of the nurse to ask a family member to leave.

As a result of this policy, the authors reported many positive psychological effects for nurses. These included mutual trust, personalization, feedback after the patient leaves the unit, and closure - all as a result of the increased presence of families. Negative effects were also noted which included unrealistic expectations for a patient's recovery, nurses' fear of interacting with families (i.e., they would avoid any painful procedures necessary for the patient), peer pressure to provide support and comfort at the bedside, and loss.

In conclusion, Dunkel and Eisendrath (1983) identified that the presence of a loving family was important to the patient and therefore the family should be allowed to stay. However, if family or unit needs interfered with the care of the patient, then the family needed to be asked to leave.

In 1985, Heater published a very rousing and thought-provoking article concerned with the issue of visitation in the ICU. She emphasized nursing's responsibility to change restrictive visiting

policies in order to humanize care. This was noted as especially important since the practice of restricting visitors was one which was not based on research, but rather on tradition. The encouragement for changing this long-accepted practice was given by presenting the history of maternal and pediatric nursing.

Both of these areas restricted visitors for many years with the belief they were doing what was best for the patient. In maternity, it was eventually realized that spouse support during labor strengthened the marital bond; therefore, fathers were allowed into the delivery room. Heater (1985) generalized this to apply to spouse support during a critical illness to create the same effect.

Visiting policies in pediatric settings have also changed dramatically over the years. In the 1950's, two hour visiting periods twice a week were common (Heater, 1985). By 1968, things were changing, but 24-hour visiting remained rare (0.5% in general hospitals; 15% in children's hospitals). Ten years later, 62% of the hospitals encouraged 24-hour visitation and rooming-in of parents. Interestingly, of the 38% that said they did not have a policy of 24-hour visitation, many stated frequent exceptions were made.

Heater (1985) provided support for having families in ICU through a review of the literature. She reported on studies indicating the patient's need of support from family members during the critical illness in order to speed recovery. She also discussed the research which indicated a patient who had sustained an MI had no greater mortality when recovered at home than in an ICU, based on family support (Mather, et al, 1971). She attributed this to the absence of cardiac arrhythmia related to the stress of isolation. She went on to state her belief

that the ideal setting for recovery from an MI was the ICU, coupled with family support.

Another reason given for increasing visiting rights was to decrease ICU psychosis. This suggestion was also supported by Chatham (1978). The use of family support by increasing visiting times would be a means of preventing the syndrome rather than treating it.

The fact that rest was given as the rationale for visitor restriction was also discussed. In an ICU, rest does not occur but as Walker (1972) demonstrated, it is not because of visitor interruption.

The CCU setting was also examined by Heater (1985) in her argument against visiting restrictions. She reported that research indicated these patients had many anxieties and venting those did increase the heart rate but rates were lower after this ventilation than before.

The research of Dracup and Breu (1978) and Hampe (1975) were also referenced and discussed in support of meeting the family's identified needs. Heater (1985) sees families and spouses as suffering from helplessness, hopelessness, fear, and anxiety; therefore, trying to meet their most important needs cannot be overlooked.

The conclusion reached by Heater (1985) was that it was time all adults, including patients, were treated as such. Therefore, their independence and autonomy should be retained. To control who, when, how many, and how long visitors may visit is to treat the adult patient worse than a child. Children are allowed 24-hour visitation by their major support system - their parents.

### **Studies of Individualized Visitation Policies in Critical Care Areas**

In recent literature there is general agreement that in order for patient and family needs to be met, individualization of visitation

should be encouraged. Chatham (1978) concluded this after her study on the effect of family involvement on patient development of postcardiotomy psychosis. The results were a significant decrease in the behaviors associated with postcardiotomy psychosis.

A control and treatment group, each consisting of ten caucasian males, were studied. Eleven specific behaviors were assessed in each of the groups. These included orientation, agitation, delusions, depression, sleep, and anxiety to name a few. Wives in the treatment group were instructed on using frequent touch, eye contact, verbal orientation to person, place and time for the ten minutes they visited, three times a day.

Those patients in the treatment group demonstrated significantly "more healthy" behaviors in five out of the 11 behaviors examined (Chatham, 1978, p. 998). As a result Chatham proposed that policies which discourage family member involvement in patient care needed to be changed. She felt more flexible visiting hours, especially if they could be coordinated with a teaching program, would stimulate purposeful patient-family interactions and allow family members in the ICU where they had previously been excluded.

The concept of individualized visitation was given further attention by a national survey done by Karin Kirchoff (1982). In this survey, several restrictions routinely imposed on MI patients admitted to intensive or coronary care units were assessed. One of those restrictions was visitation.

The purpose of the study was to determine the various visiting policies imposed nationally. Initially a pilot study of 24 hospitals was conducted. Open-ended questions were utilized to look at variations

in visiting policies. These questions were converted to close-ended ones for the survey, with the pilot study responses used as response options.

Kirchoff (1982) obtained a large sample: 202 out of 235 eligible institutions plus 524 of 600 eligible nurses responded. A variety of patterns of visiting emerged as well as differences according to hospital size. Most hourly visits were reported by hospitals having 200 or fewer beds. In larger hospitals, visiting at scheduled times occurred. Equally distributed was the policy of visiting every two hours (Kirchoff, 1982).

From a review of the literature, Kirchoff (1982) uncovered inconsistencies with the effects of visits on patients in CCUs. She concluded that the initial purpose of restrictive visiting in CCUs was to provide rest. Yet these same policies remain in place without regard to their effectiveness. She states there is an indication that individualized visiting might be less physically arousing and more psychologically satisfying.

Kirchoff's (1982) results indicated that less urban hospitals tend to allow only short visits for immediate family with few exceptions. The smaller the hospital, the shorter but more frequent the visits as compared to larger hospitals which allowed longer time periods for visits but did so less frequently. Smaller hospitals also tended to limit number of visitors in addition to immediate family only.

Visiting policy variables and unit variables were also analyzed. Unit variables included the specificity of the unit, percentage of coronary beds, and total number of beds in the unit. Kirchoff (1982) found visits tended to be short, but frequent for one member of the

immediate family in less specific units with fewer beds and with smaller percentages of coronary beds. The more specific the unit (as in a CCU), the less frequently visits were allowed.

Nurses were asked to rate the importance of restriction of visiting time as one of 21 nursing actions related to the care of the patient who had sustained a MI. They rated the importance of the restriction just slightly higher than the frequency of the restriction. This finding suggested that nurses value enforcement of visiting restrictions for the MI patient. This rating was found to be associated with educational preparation with Master's prepared nurses rating the importance of visitation restrictions the lowest and diploma and associate degree nurses rating them the highest.

Several interesting points are made in regard to visiting restrictions and why they are so varied. Kirchoff (1982) brings up the issue of power and control that these restrictions give the health care workers. She states the control mechanism is being misused in some instances. Also, she makes the very strong argument that if visiting policies were made for the benefit of the MI patient, so many varied patterns would not exist. They also would not be affected by institutional and unit characteristics.

Again, the question of why visiting restrictions exist was asked. Kirchoff (1982) reiterated that there is no research which proves or indicates that restricted visiting promotes rest for the MI patient. She stated some nurses may actually believe this, without evaluating it, and therefore enforce it. The difficulties of short five-ten minute visits, such as limiting and terminating conversations abruptly was addressed. She encouraged those developing or altering policies to

take into consideration the needs of the visitors as well as those of the patient. Kirchoff (1982) also reiterated that the era of individualizing care of patients has not yet extended to visiting policies.

Lovejoy (1987), in an editorial in Heart and Lung, described the beneficial role of the hospital visitor. She reported on the flexibility of visiting now in place in a few acute hospital settings. This was identified as a bonus for nurses since they no longer had to police visitors. She also identified the trend toward looking at the family in the treatment of the patient.

She interviewed 105 family members of patients hospitalized on an oncology unit to determine various roles undertaken by visitors. She concluded that roles assumed by a visitor, their effects on coping with the patient's illness, and their ability to care for the patient after discharge, all still required vigorous research.

Another survey of critical care unit visiting policies was done in 1988 (Stockdale and Hughes, 1988). A sample of 240 nurses of the approximately 300 who were eligible responded to a questionnaire on their institutions' visiting policy. The purpose of the questionnaire was to determine the current critical care unit visiting policies as well as patient, nurse, and family satisfaction with these. They also were interested in what nurses perceived to be the ideal policy.

The most frequently reported number of visits allowed per day was an unlimited number (26.9%), with the second most frequent response being four visits (21.8%). Fifteen minutes was the most frequent length of visit, with the second being ten minutes. The results were controlled for more than one person reporting from the same institution. The

potential bias of those who completed the questionnaires was also addressed. The questionnaire was distributed at a convention of the American Association of Critical Care Nurses. Since those in attendance chose what lectures to attend, those respondents may not represent the average.

There remains much variation with policies. The authors give as an example, that the number of visits per day varied from two to 24. The only policy for which there was more consensus was the number of visitors, with the majority indicating two visitors (87.3%).

Stockdale and Hughes (1988) determined that nurses are just as likely to be satisfied with a liberal policy as a conservative one. As for patient and family satisfaction, there was a tendency for nurses in those units who had liberal visiting policies to believe patient and family satisfaction was higher.

The most frequent response to the question regarding the ideal number of visits allowed per day was "unlimited" with the second most frequent response being "four". These figures seem to indicate an extreme in the sample population - from very liberal to strict. Also, literature has shown that nurses' perceptions are not always the same as patients' and families' (Norris and Grove, 1986). A majority of respondents (67.5%) felt there should be some limit to the length of a visit.

Stockdale and Hughes' (1988) results were similar to those of Kirchoff (1982) in that there was little consensus on what limits should be set regarding visitors in a critical care unit. They concluded that the justification for strict restrictions was unclear, if indeed it existed.

Hamner (1990) reported a review of the literature which also emphasized the fact that visiting restrictions are not supported by research. She gave the history of CCUs from the guidelines set by the U.S. Public Health Service. It is clear that these guidelines were transformed into CCU visiting policies and in many areas, have not been changed since 1965 when the guidelines were published. Changes that have occurred are primarily unwritten and vary widely depending on the individual unit and nurse.

After reviewing the literature, Hamner (1990) concluded that there may be both positive and negative effects of visitation on the patient. Therefore, individualization of visitation was indicated in order to meet patients' needs. She also referenced Zetterlund (1971) as support for the concept of providing the patient with the opportunity to have a say in the regulation of visiting and offered a possible process for individualizing visitation. One step in this process involved a Visitation Needs Assessment Tool which uses open-ended questions to allow the patient the opportunity to have some authority concerning the visitation pattern. Hamner (1990) supported the nurse as patient advocate in this process so that in addition to giving control over visitation to the patient, individualization of visitation can be practiced.

### Summary

A review of the literature has resulted in conflicting data concerning visitation needs of patients and their families. Furthermore, the number of studies of visitation needs in the Coronary Care Unit setting are lacking. The CCU is important to distinguish from other critical care areas for several reasons. One reason is that CCU patients

generally do not have as many overt signs of critical illness, such as having numerous invasive lines or being on a ventilator, as do ICU patients. Another reason is that MI patients and their families do not have the additional stressor of dealing with patient disfigurement as a result of traumatic injuries or extensive surgery. Because of these differences, it may not be prudent to generalize the results from ICU studies to the CCU environment. The present study will add to the body of knowledge concerning visitation needs of patients and their families in the CCU.

## CHAPTER III

### METHODOLOGY

#### Introduction

This chapter will focus on the conceptual framework and research questions as well as the definitions of terms used in the study. The research design, sample and data collection methods will also be discussed. The assumptions and limitations of the study will be highlighted.

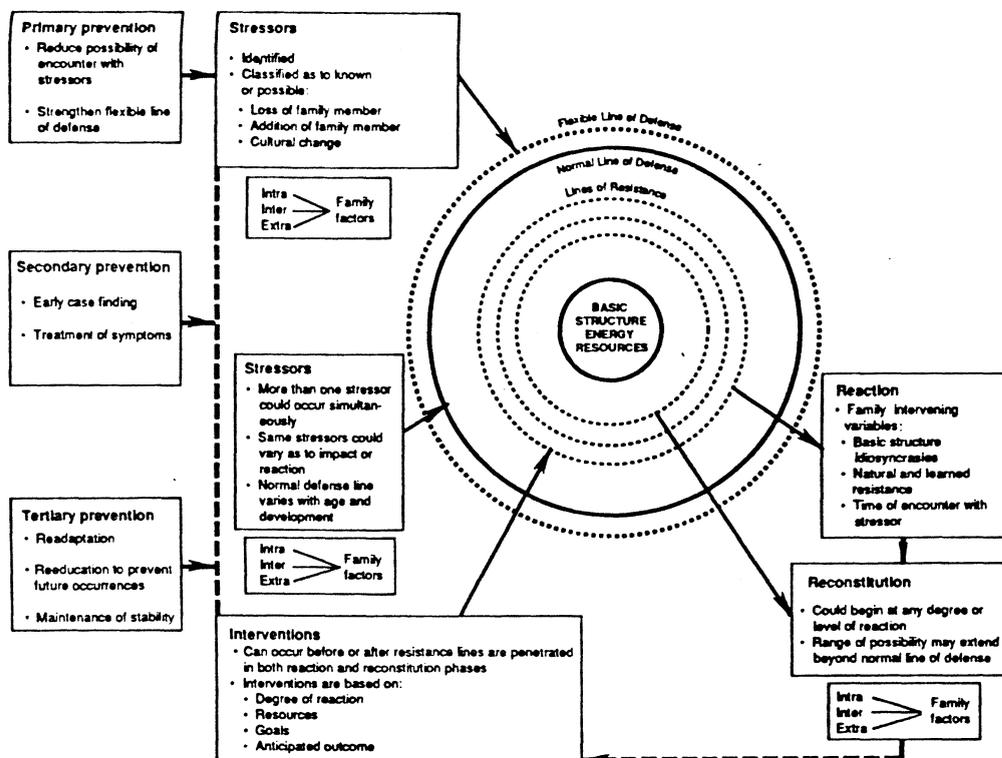
#### Theoretical Framework of the Study

Betty Neuman's Health Care Systems Model will be the basis for this study (see Figure 1). It is a multidimensional, total person approach utilizing aspects of Gestalt's, crisis and general systems theories (Neuman, 1980). Use of the total person approach to patient care is aimed at providing a unifying focus for approaching varied nursing problems and understanding man and his environment (Neuman, 1980).

The major concepts of Neuman's model are stressors, basic structure, lines of resistance, intervention, levels of prevention, and reconstitution (Herniz & Meininger, 1986). Using the open systems approach, the system tries to maintain homeostasis when disruptive forces exist (Neuman, 1980). Physical, psychological, sociocultural, and developmental processes may affect an individual at any point in time resulting in disruption of the system. These forces are equivalent to stressors which may be noxious or beneficial. Stressors are defined as tension-producing stimuli with the potential of causing stress within an individual's life (Neuman, 1980). Neuman states there are three types of stressors: intrapersonal, which occur within the individual

Figure 1

## Adaptation of Neuman's Model to the Family



Source: Neuman, B. (1989). The Neuman Systems Model (2nd ed.).

Norwalk, Conn.: Appleton & Lange, p. 387.

(e.g. the patient who has had an MI may experience anxiety concerning role expectations such as return to a former occupation); interpersonal, which occur between one or more persons (e.g. the staff and MI patient may conflict over issues of care); and extrapersonal, which occur outside the individual (e.g. the MI patient may have financial concerns). More than one stressor may occur simultaneously which is often the case with the person hospitalized with an MI.

The core of the model (see Figure 1) consists of a solid circle which comprises the basic structure energy resources. This is composed of survival factors, some of which are known and universal, common to all members of the species, while others are unique characteristics of individuals. Blood pressure, body temperature, and pulse are just a few examples of physiologic measurements which have accepted normals yet where individuals have their own baselines.

Surrounding the basic core is a broken line representing the flexible lines of resistance. These are internal factors which attempt to stabilize and return the person to the normal line of defense, should a stressor break through. The degree of reaction to the stressor depends on the resistance forces encountered; therefore strengthening the flexible line of resistance may also enhance recovery. In the case of a person who has sustained an MI, strengthening of the flexible line of resistance may be done psychologically or physiologically. Psychologically, strengthening of the flexible line of resistance may include the development of additional coping mechanisms to deal with a life threatening situation. An example of this would be the sharing of concerns with one's spouse in order to cope with fears and anxieties. Physiologically, strengthening of the flexible line of resistance may

be observed as a decrease in peripheral circulation in order to allow more blood flow to the heart.

The outer solid line represents the normal line of defense. This includes physiological, psychological, and sociocultural variables and is influenced by developmental stage (Neuman & Young, 1972). This is a result of what the person has become over time - how the individual deals with stress normally. For example, a patient who has sustained an MI may use denial as a method of dealing with this stress. However, what constitutes the normal line of defense for one may not for another.

The outer broken line, the flexible line of defense, is dynamic rather than stable and can be rapidly altered (Neuman, 1980). It acts as a protective barrier to prevent stressors from breaking through the normal line of defense. It is susceptible to situational circumstances such as amount of sleep, comfort or the introduction of stress. By meeting the needs of the individual, the distance between the flexible and normal lines of defense is decreased, thereby decreasing the likelihood of penetration of the normal line of defense by stressors (Neuman & Young, 1972). Multiple impact of stressors can decrease the effectiveness of the flexible line of defense and allow a reaction from one or more stressors to occur. Therefore, it is important to strengthen the flexible line of defense to prevent a possible reaction. It is at this level that social support systems (i.e. families) are paramount. They help reduce real or potential stressors, such as fear and anxiety, which naturally accompany critical illness. Restricted visiting may or may not be beneficial to the patient depending on the families' ability to strengthen the patient's flexible line of defense. For example, if the families' presence allowed the patient to rest,

the flexible line of defense would be strengthened. If this line of defense is destroyed, and reaction to a stressor occurs, response of the patient is either toward death, when penetration of the basic structure occurs, or toward reconstitution (Neuman, 1980).

The goals of nursing interventions are to maintain homeostasis of the patient's system so energy may be conserved (Neuman, 1980). This is attained by controlling the stressors affecting the patient. Neuman believes the nurse should use purposeful interventions and a total person approach in order for individuals, families or groups to reach and maintain wellness (Hermiz & Meininger, 1986). Intervention can begin at any point where a stressor is suspected or identified, such as when a patient is admitted with complaints of chest pains.

Neuman (1980) identifies three stages of intervention: primary, secondary, or tertiary prevention. Primary prevention is concerned with strengthening the flexible line of defense. This requires an assessment of the meaning an experience has to an individual in the present, as well as some knowledge of past coping patterns. In the patient who has experienced an MI, the flexible line of defense of the patient may be strengthened by allowing the family to visit frequently, thereby decreasing anxiety in the patient as well as the family. Secondary prevention is initiated after the encounter and includes early case identification and treatment of symptoms following reaction to a stressor. This would include treatment of pain and any complications after an MI. Tertiary prevention is initiated after treatment and focuses on readaptation and reeducation to prevent reoccurrences. Cardiac rehabilitation would occur in this stage.

Reconstitution deals with resolution of the stressor. In order

for a level of wellness (i.e. reconstitution) to occur, Neuman (1980) states all needs must be met so more energy is stored and created than is expended. While an individual may reconstitute to a higher or lower level than before penetration, it is proposed that if visitation needs of the patient and family are met, then reconstitution will occur at a higher level.

Myocardial infarction is both physically and psychologically life threatening making it a major life stressor for the patient and family. Any life threatening illness challenges patient, as well as family stability, adaptability, and resources (Wright and Leahey, 1987). Roberts (1976) notes no stress or event is the same for all families and recommends individualization of care. Neuman (1980) supports this view. Utilization of her Health Care Systems Model enables nurses to offer preventive, supportive, and therapeutic intervention by becoming aware of the needs of patients and their families.

#### **Assumptions Based on the Theoretical Framework**

1. The role of the coronary care nurse includes the family when caring for the critically ill.
2. A myocardial infarction creates many physical and psychological stressors.
3. The nurse has the ability to intervene to reduce or alleviate some of the stressors associated with a MI.
4. Family support may reduce or alleviate some of the stressors associated with a MI.

#### **Problem Statement**

The purpose of this study was to identify the perceived visitation needs of patients with myocardial infarctions (MIs) and their families.

Another purpose was to determine if the visitation needs of patients and their families differed. Patients' and families' desire to control visitation was also assessed.

### Research Questions

1. What are the perceived visitation needs of patients who have sustained an MI and their families?
2. Is there a significant difference in perceived visitation needs between patients and family members?
3. Is there a significant difference in perceived visitation needs between males and females?
4. Are the perceived visitation needs of patients and families with no previous CCU experience different from those with previous CCU experience?
5. Is there a difference in patient visitation needs with the first MI as compared to subsequent MIs?
6. When given the option, do patients and families desire to have control over visitation?

### Concepts and Operational Definitions

**Patient:** A person hospitalized in the CCU.

**Family:** "A small group of closely interrelated and interdependent individuals who are organized into a single unit so far as to attain specific purposes, namely, family functions or goals" (Friedman, p. 83, 1986). For the purposes of this study, a family member will be defined as an adult (18 or older) who is a blood, marital relative, or significant other as designated by the patient.

**MI:** Myocardial infarction is necrosis, or death, of a portion of the heart muscle. For the purposes of this study, MI will be defined

by isoenzymes elevation and/or evidence of MI on EKG. All those meeting these criteria will be eligible to participate.

**Visitation Needs:** Needs of the patient and family member specific to visiting regulations. In this study, visitation needs will be measured by a questionnaire.

**CCU Visitation Policy:** The present CCU policy is to allow visiting three times a day for two-hour periods. One person may visit for ten minutes and then the patient gets 20 minutes of rest. Frequently, a hospital volunteer sits at the door and keeps a record of who visits and when the visiting time for that individual is finished. If there is not a volunteer, visitors must ring the doorbell to enter the unit and the length of the visit is then controlled by the individual nurse. The volunteers generally strictly adhere to the visiting policy unless the patient's nurse informs them otherwise. When the length of the visit is left up to the nurse to monitor, frequent variations occur. Some nurses tend to individualize the length of the visit according to the patient's condition, while others will adhere to the stated policy as much as possible. Nurses in this unit tend to be consistent in restricting visiting if a patient has or has had chest pain.

### **Research Design**

A nonexperimental, cross-sectional, descriptive study was utilized to obtain information concerning the population of interest. The focus of this study was to determine the perceived visitation needs of CCU patients and their families and to determine if differences existed in these perceptions. This study will be useful in gaining knowledge concerning visitation needs within the CCU setting.

### Study Population

The study population was comprised of patients who had been hospitalized with a diagnosis of MI and their families. The patients were all hospitalized in the same ten bed coronary care unit of a 383 bed rural medical center, located on the Eastern Shore of Maryland. The census in this CCU is comprised solely of critical, coronary-related medical patients who do not require mechanical ventilation.

### Study Sample

The study sample was a convenience sample obtained from the ten bed CCU described above. Participation was voluntary, with all persons who met the eligibility criteria being approached and offered inclusion in the study. One family member, whom the patient designated as a significant other, and who visited the patient in CCU, was asked to participate. Joint participation was necessary for inclusion in the study. Those who refused were asked their reason for refusal so this information could be considered in the discussion of the study.

Thirty-four patients were offered inclusion in the study. Thirty-two MI patients and one family member of each patient completed and returned the questionnaire for a participation rate of 94 percent. One person who was eligible for inclusion in the study declined to participate giving the reason "mine won't make any difference in the way things are done." He was not persuaded to complete the form. A second patient and his wife agreed to participate but then did not return the questionnaires. Three attempts were made by the researcher to retrieve the questionnaires before the patient was discharged from the hospital. (The patient stated his wife had taken both questionnaires home and she had not returned to visit.) Following an angioplasty,

this same patient was admitted to the CCU one week after discharge. His wife did not visit during his two-day stay in CCU; therefore they were excluded from the study. Those agreeing to participate were given instructions for completing the questionnaire which was given to the patient on transfer out of the unit. Patients were asked to give a second questionnaire to their family member. Participants were encouraged to complete the form as soon as possible but were allowed until the next day if necessary. It was emphasized that completion of the questionnaire should take no longer than ten minutes.

### Study Variables

The variables examined in this study were:

1. Visitation Needs: Needs are the requirements of a person which if supplied, relieves or diminishes immediate distress or improves the immediate sense of adequacy or well being. Visitation needs are needs specific to visiting regulations. In this study, visitation needs were measured by a questionnaire which was administered to the patient and one member of the patient's family.
2. Family Member: See operational definition. One person, who the patient designated as his/her significant other, was approached and offered inclusion in the study.
3. CCU: Ten bed medical coronary care unit.
4. CCU Experience: Both patient and family member were asked if they or a family member had ever been hospitalized in a CCU.
5. History of a Previous MI: The patient was asked if they had had a previous MI. This was confirmed by review of the patient chart.
6. Age of the Patient: Chronological age of the patient collected from the demographic questions on the questionnaire.

7. Age of the Visitor: Chronological age of the visitor as collected from the demographic information on the questionnaire.
8. Sex of Patient and Visitor: Collected from demographic information.
9. Control of Visitation: Control over the number of visitors to visit at one time and/or the times of the visits. Information from the comments section of the questionnaire was also analyzed when assessing this variable.

### Instrumentation

A modified version of the Likert type scale questionnaire developed by Boykoff (1986) was used (Appendix 5). In Boykoff's (1986) study, a two-part method of data collection was utilized. First, Boykoff used a qualitative research approach in order to elicit information concerning visitation from patients with cardiac disease and their families. An open-ended interview was developed based on the literature concerning visiting in the ICU and on Boykoff's own clinical experience in working with patients with heart disease. The interview topics included visitation policy, the physical environment of the unit, and the roles of nurses, patients, and family members during visitation. The content validity of this portion of the study was suggested by Boykoff. This was based on the agreement of two nurses who specialized in the care of patients with heart disease that the open-ended interview would elicit information about the visitation experience.

Based on the data collected from the first phase of Boykoff's (1986) study, 22 visitation themes were identified. From these, Boykoff used the responses most frequently given to create a 15-item questionnaire which was administered to a separate group of study participants. Again, Boykoff suggested content validity of the second

tool based on it's review by several cardiac nurses. These nurses all agreed that the questions were highly reflective of the visitation themes previously identified by Boykoff. A pilot study with patients, lay persons and graduate nursing students was also used to establish content validity (personal communication, Boykoff, July 6, 1990).

Similarly to Boykoff (1986), the participants in the present study were asked to rate each question on a scale of one to four, with one being "not very important at all to me", to four being "very important to me". Questions were added for the present study concerning the patients' desire to have control of visitation as this has surfaced as of interest in recent literature (Brannon, Brady and Gailey, 1990; Sime and Kelley, 1983). Demographic information such as age, sex, relationship to the patient, as well as previous experience with CCU and history of a previous MI was also sought. Two short answer questions were also used in order to allow participants to comment on: "What was good about the visitation policy in the Coronary Care Unit?" and; "What changes could be made in the Coronary Care Units visiting policy?"

As previously stated, content validity of the tool was suggested by Boykoff (1986). In order to assure the questions were pertinent to visitation needs, this was reassessed for the present study by a panel of experts. The panel consisted of five CCU nurses, each with at least five years of CCU experience. Boykoff did not supply reliability data. Internal consistency of this modified version was assessed in the present study utilizing Cronbach's alpha. The reliability coefficient was assessed to be 0.82.

### **Data Collection**

A self administered questionnaire adapted from one developed by

Boykoff (1986) was given to the subjects. Permission was obtained to replicate portions of this tool prior to its use (see Appendix 4). A coding method was utilized in order to match family member with patient, while assuring anonymity. In order to assure all persons were able to complete the study, the offer was made by the researcher to read the questionnaire to all participants.

Participants were approached approximately 48 hours after admission to CCU and after confirmation of the diagnosis of MI. Only stable individuals (i.e. those without complications such as congestive heart failure, uncontrolled arrhythmias or recurrent pain) were approached.

Data was collected for almost three (3) months. At that time it was thought best to end the collection for fear that eligible subjects were being missed as the researcher had changed jobs and no longer worked in the CCU.

Charts were evaluated to ascertain the admission data, current diagnosis of MI and any complications the patient might be experiencing. The CCU nurses' assistance was sought in recruiting participants for the study but this rarely occurred. If a family member visited and the patient met all the eligibility criteria, then the researcher would first approach the patient, or optimally both the patient and the family member during a visit and ask for their assistance. Those agreeing to participate were asked to sign an informed consent form (Appendix 1) which was placed on the front of the chart to remind the nurse to give the patient both questionnaires on transfer out of the unit. The consent form was given to the patient on transfer out of CCU, either by the nurse or by the researcher. At the time consent was obtained, the patient and family were instructed that they would receive the

questionnaires once there was an order for them to transfer out of CCU. The completed questionnaires would then be retrieved within 24 hours after transfer.

It was emphasized that the questionnaires could be filled out as soon as the order was obtained for them to transfer out of the unit. The participants were also informed that after completion the questionnaires could be left in CCU or the researcher would visit them in their room on the step down unit.

### **Method of Data Analysis**

As questionnaires were returned the data was transcribed onto a grid sheet for coding purposes. Once all data was collected frequencies were obtained for all variables including sex, age groups, persons experiencing their first MI and those with previous CCU experience. Frequencies were also obtained for questions 22 and 23 which pertained to the patient controlling visitation.

Four categories were used in assigning numerical values to the degree of importance of the needs; these values ranged from 1, meaning "not very important at all to me" to 4, meaning "very important to me". The means for questions 7 through 23 were determined separately for the patient and the family. These results were further analyzed in respect to the frequencies of all responses marked with a numerical value of 3 or 4 as the degree of importance or if these questions were not rated high but the participant wrote a comment about altering the present CCU visiting policy.

Item frequencies for both sexes, as well as those for patients and families were analyzed. T-tests were used to determine if there was a significant difference between patient and family responses,

as well as between those with previous CCU experience, or previous MI and those without such experience.

### **Ethical Implications**

Written informed consent was obtained from all participants (Appendix 1). Approval was also obtained from Salisbury State University's Human Volunteers Committee (Appendix 2), as well as verbal consent from the Vice President of Nursing of the Institution, and the clinical manager of the CCU. Approval was also obtained from the hospital research committee (Appendix 3). Confidentiality was assured by use of coding of the questionnaires and storage of the questionnaires in a locked file. These were all destroyed after coding was completed.

There was a slight risk that completion of the questionnaire or participation in the study might produce physiological or psychological stress in the respondents. It was emphasized at the initial contact that participation could be terminated at any time, at the discretion of the subjects. No adverse reactions were encountered.

### **Assumptions and Limitations of the Study**

Assumptions:

1. The patient and his/her family have the ability to identify their own visitation needs.
2. Participants will complete the instrument truthfully.
3. Any knowledge gained will enhance the quality of care for patients and their families.

Limitations:

1. The inability to alter the visiting policy in order to have a control and treatment group decreases the strength of the study.
2. Use of a convenience sample and a small sample size make it

impossible to generalize the results.

3. Use of a self administered questionnaire may have caused error due to comprehension problems and misinterpretations, as well as missing situations not covered in the questionnaire but which may also have been important.
4. Use of a cross-sectional design as the data was about one patient and one family member in a specific time.

## CHAPTER IV

### DATA ANALYSIS

#### Introduction

This chapter includes a description of the study sample, as well as an analysis of the data which were collected. The research questions which were presented in Chapter III will also be answered. The Statistical Package for Social Sciences (SPSS-X) was used to analyze the data.

#### Description of the Study Sample

Inclusion in this study sample was limited to patients hospitalized in the CCU with a confirmed diagnosis of an MI, and one of their adult family members. The family member also had to have visited the patient in the CCU. All patients also had to be free of any complications resulting from the MI. All patients who met the above criteria were offered inclusion into the study. One patient declined participation, commenting that his opinion would not make a difference. Another patient, and his wife, did not return the questionnaires. Reportedly, the wife did not visit the patient again once he was transferred out of the CCU. A summary of the demographic data is presented in Table 1.

A total of 32 patient-family pairs completed the questionnaires, and were retrieved by the researcher. As stated in the previous chapter, 34 patient-family pairs were eligible to participate, yielding a participation rate of 94%. The average patient age was 61, with a range from 44-88 years old. There were almost twice as many male patients (21) as female patients (11). Nineteen (59.4%) of the patients had previous CCU experience, versus 13 (40.6%) without prior experience.

Table 1

**Characteristics of Sample Subjects**

<u>Characteristic</u>	<u>Patients</u>	<u>Percent</u>	<u>Families</u>	<u>Percent</u>
<b>AGE</b>				
Average age	61	---	55	---
Range of ages	44-84	---	19-73	---
<b>SEX</b>				
Male	21	65.6	6	18.8
Female	11	34.4	26	81.3
<hr/>				
<b>TOTAL</b>	32	100.0	32	100.1
<b>CCU EXPERIENCE</b>				
Yes	19	59.4	19	59.4
No	13	40.6	13	40.6
<hr/>				
<b>TOTAL</b>	32	100.0	32	100.0
<b>HISTORY OF MI</b>				
Yes	11	34.4	---	---
No	21	65.6	---	---
<hr/>				
<b>TOTAL</b>	32	100.0		

For the majority of the patients (21 or 65.6%), this was their first MI.

The average visitor age was 55, with a range from 19 to 73 years of age. The greatest proportion of visitor respondents were female (81.3%). Of the visitors, 54% (19) stated they had had previous CCU experience either as a visitor or a patient.

### **Instrument**

The instrument used was a questionnaire developed by Susan Boykoff (1986) which was modified by this researcher for use in the present study. Permission to use the instrument was obtained from Boykoff (Appendix 3).

Not all items on the questionnaire were answered by all participants. Participants were encouraged to respond to all questions during the initial contact. It was stated in the initial contact that answering the questions was at their discretion.

Cronbach's alpha, for the internal consistency of the instrument in this study, was determined to be 0.82. Boykoff was unable to supply reliability data for her tool.

A factor analysis was also performed on the instrument. Six factors were identified from 17 items indicating that these items tended to measure six different kinds of information (Table 2). The six factors identified were grouped as: the nurse informs (questions 10, 11, 12, 13, 16); the nurse does (questions 8, 14, 15, 17); phone (questions 7, 9); regulation of visitation (questions 22, 23); bedside care (questions 19, 20); and family/friends visit (questions 18, 21). Questions which loaded on more than one factor were grouped with the factor with the strongest factor loading.

Table 2

**Factor Analysis: Factor Loadings for Identified Factors**

	Factor1	Factor2	Factor3	Factor4	Factor5	Factor6
Question 12	.77052		.34620		.32741	
Question 16	.69950					
Question 13	.64958					
Question 10	.52777	.42870				
Question 11	.52637	.33045				
Question 17		.65969				
Question 15		.65714				
Question 8	.39200	.56437	.53074			
Question 14		.37433	.34836		.32015	
Question 9			.91651			
Question 7	.50314	.44550	.55006			
Question 23				.90576		
Question 22				.71089		
Question 20	.33981				.78253	
Question 19					.52339	
Question 21						-.81656
Question 18						.68212

### Perceived Patient and Family Visitation Needs

The first research question was: What are the perceived visitation needs of patients who have sustained an MI, and their families? Patient and family visitation needs, as rated in this study, are ranked by importance in Table 3. Similarly to Boykoff (1986), these needs were ranked based on item means. The percentage of subjects who selected "very important to me" for each of the items was also noted. As indicated in Table 3, the differences between percentages and item means did occasionally make a slight difference in the ranking of the importance of that item.

The need which ranked the highest for both patients and families was the need to restrict visitation if the patient was experiencing chest pain. Patients and families ranked the top five needs essentially the same with the first three being ranked exactly the same. Furthermore, with the exception of the need to have nurses regulate the times of visiting being rated twelfth by family members, the first ten needs were the same for patients and families but in a different order. To allow friends to visit in the CCU was ranked as the lowest need by both patients and families.

The second research question was: Is there a significant difference in perceived visitation needs between patient and family members? A t-test was performed on the difference in mean visitation need scores between patients and family members. One significant difference in item means was found (Table 3). This related to permitting only immediate family members to visit in CCU ( $p = .042$ ). Family members tended to rate this need higher than patients. The need to have nurses explain the patient's condition when people enter the CCU to visit

Table 3

**Rank Importance of Visitation Needs**

Need	Mean ( $\bar{x}$ )	Patient (n = 32)		Mean ( $\bar{x}$ )	Family (n = 32)	
		% <sup>a</sup>	Rank		% <sup>a</sup>	Rank
To have nurses restrict visitation if the patient is experiencing chest pain.	3.800	93.3	1	3.969	96.6	1
To know what time during the day and evening people will be allowed to visit in the CCU.	3.645	77.4	2	3.875	93.8	2
To have CCU visiting hours posted or written down.	3.625	81.3	3	3.781	87.5	3
To have nurses reassure family members when the patient is stable enough for them to leave the hospital waiting area.	3.531	75.0	4	3.719	84.4	5
To have nurses keep the family informed about the patient's condition.	3.469	75.0	5	3.781	87.5	4
To have nurses relay phone messages from the family to the patient.	3.375	68.8	6	3.688	78.1	7
To have nurses respond to telephone calls from family about the patient's condition.	3.344	62.5	7	3.594	81.3	9
To have nurses regulate at what times during visiting hours people can enter CCU to visit.	3.333	66.7	8	3.219	53.1	12

<sup>a</sup>Percentage of respondents who rated the item "very important to me".

Table 3 (continued)

**Rank Importance of Visitation Needs**

Need	Mean (x)	Patient (n = 32)		Mean (x)	Family (n = 32)	
		% <sup>a</sup>	Rank		% <sup>a</sup>	Rank
To have nurses regulate how many people can visit at one time.	3.313	62.5	9	3.656	78.1	8
To permit only immediate family (excluding nonfamily members) to visit in CCU.*	3.161	58.1	10	3.710	90.3	6
To have nurses check to see if visitors have concerns or problems they need help with when they enter CCU to visit.	3.156	53.1	11	3.323	58.1	11
To have nurses explain the patient's condition to people when they visit.**	3.000	40.0	12	3.500	78.1	10
To have the patient regulate how many visitors may visit at one time.	2.800	46.7	13	2.733	46.7	15
To have nurses explain that family members can touch the patient.	2.806	38.7	14	3.129	58.1	13
To have chairs at the bedside for visitors.	2.781	34.4	15	2.938	53.1	16
To have the patient regulate when he or she will have visitors.	2.767	40.0	16	2.800	50.0	14
To allow friends as well as family to visit in the CCU.	2.194	22.6	17	1.875	21.9	17

<sup>a</sup>Percentage of respondents who rated the item "very important to me".

\*t = -2.08    df = 60    p = .042

\*\*t = -1.91    df = 60    p = .062

was found to be more important by families than patients. While the difference was not significant at the .05 level, it may indicate a potential trend.

### **Variables Effecting Patient and Family Visitation Needs**

Sex: A t-test was utilized to determine if there was a difference in visitation needs between males and females without regard to subject status (patient or family member) (Table 4). This was done in order to assess if sex influenced visitation needs. No significant difference in item means was found ( $p < 0.05$ ); however two statements did have p-values  $< .10$  indicating a potential trend toward differences in means between males and females for these two needs. The need to have the nurse explain the patient's condition to people when they visited was rated highest by females ( $p = .059$ ). The need to have chairs at the bedside was similarly rated higher by females ( $p = .082$ ).

CCU Experience: The fourth research question was: Are the perceived needs of patients and families with previous CCU experience different from those with no previous experience? No significant differences in item means for visitation needs was found at the 0.05 level of significance (Table 5). However, two questions did have significant differences in means at a level of significance of  $p < 0.06$ . These were: to know what time during the day and evening people would be allowed to visit in the CCU ( $p < 0.056$ ), and to permit only immediate family to visit in the CCU ( $p < 0.055$ ). Participants without previous CCU experience tended to rate the need to know visiting times higher than those with previous CCU experience. The need to permit only immediate family members to visit was rated higher in importance by those participants with previous CCU experience.

Table 4

**Differences in Visitation Needs by Sex**

<b>Needs</b>	<b>Males</b> (n = 27) x	<b>Females</b> (n = 37) x	<b>df</b>	<b>t</b>	<b>p</b>
To have nurses respond to telephone calls from family about the patient's condition.	3.26	3.62	62	-1.48	NS
To have nurses keep the family informed about the patient's condition.	3.41	3.78	42.98	-1.61	NS
To have nurses relay phone messages from the family to the patient.	3.52	3.54	62	-0.10	NS
To have nurses reassure family members when the patient is stable enough for them to leave the hospital waiting area.	3.59	3.65	62	-0.27	NS
To have nurses regulate how many people can visit at one time.	3.33	3.59	62	-1.12	NS
To know what time during the day and evening people will be allowed to visit in the CCU.	3.62	3.86	37.51	-1.41	NS
To have CCU visiting hours posted or written down.	3.70	3.70	62	0.01	NS
To have nurses check to see if visitors have concerns or problems they need help with when they enter CCU to visit.	3.08	3.35	61	-1.03	NS
To have nurses regulate at what times during visiting hours people can enter CCU to visit.	3.36	3.22	60	0.55	NS
To have nurses restrict visitation if the patient is experiencing chest pain.	3.85	3.92	60	-0.50	NS

Table 4 (continued)

**Differences in Visitation Needs by Sex**

<b>Needs</b>	<b>Males</b> (n = 27) $\bar{x}$	<b>Females</b> (n = 37) $\bar{x}$	<b>df</b>	<b>t</b>	<b>p</b>
To have the nurses explain the patient's condition to people when they visit.	2.96	3.47	60	-1.92	.059
To permit only immediate family (excluding non-family members) to visit in CCU.	3.20	3.59	60	-1.44	NS
To have nurses explain that family members can touch the patient.	2.77	3.11	60	-1.11	NS
To have chairs at the bedside for visitors.	2.56	3.08	62	-1.77	.082
To allow friends as well as family to visit in CCU.	2.15	1.94	61	0.63	NS
To have the patient regulate when he or she will have visitors.	2.88	2.72	58	0.44	NS
To have the patient regulate how many visitors may visit at one time.	2.75	2.78	58	-0.08	NS

Table 5

## Differences in Visitation Needs Based on CCU Experience

Needs	Previous CCU Exp. (n = 38) $\bar{x}$	No Previous CCU Exp. (n = 26) $\bar{x}$	df	t	p
To have nurses respond to telephone calls from family about the patient's condition.	3.39	3.58	62	-0.73	NS
To have nurses keep the family informed about the patient's condition.	3.53	3.77	62	-1.08	NS
To have nurses relay phone messages from the family to the patient.	3.39	3.73	62	-1.50	NS
To have nurses reassure family members when the patient is stable enough for them to leave the hospital waiting area.	3.61	3.65	62	-0.23	NS
To have nurses regulate how many people can visit at one time.	3.53	3.42	62	0.44	NS
To know what time during the day and evening people will be allowed to visit in the CCU.	3.65	3.92	47.23	-1.96	.056
To have CCU visiting hours posted or written down.	3.71	3.69	62	0.09	NS
To have nurses check to see if visitors have concerns or problems they need help with when they enter CCU to visit.	3.24	3.24	61	-0.01	NS
To have nurses regulate at what times during visiting hours people can enter CCU to visit.	3.11	3.50	60	-1.51	NS

Table 5 (continued)

**Differences in Visitation Needs Based on CCU Experience**

<b>Needs</b>	<b>Previous CCU Exp. (n = 38) <math>\bar{x}</math></b>	<b>No Previous CCU Exp. (n = 26) <math>\bar{x}</math></b>	<b>df</b>	<b>t</b>	<b>p</b>
To have nurses restrict visitation if the patient is experiencing chest pain.	3.84	3.96	44.53	-1.02	NS
To have the nurse explain the patient's condition to people when they visit.	3.33	3.15	60	0.66	NS
To permit only immediate family (excluding non-family members) to visit in CCU.	3.65	3.12	60	1.96	.055
To have nurses explain that family members can touch the patient.	2.95	3.00	60	-0.17	NS
To have chairs at the bedside for visitors.	2.92	2.77	62	0.55	NS
To allow friends as well as family to visit in CCU.	2.05	2.00	61	0.16	NS
To have the patient regulate when he or she will have visitors.	2.89	2.61	58	0.82	NS
To have the patient regulate how many visitors may visit at one time.	2.73	2.83	58	-0.27	NS

History of a Previous MI: The fifth research question was: Are the perceived visitation needs of patients who have sustained a prior MI different from those patients with no prior history of an MI? At the 0.05 level of significance, only one question demonstrated a significant difference in item means between the two groups (Table 6). This question was related to nurses responding to telephone calls from the family ( $p = 0.035$ ). Those without a history of prior MI rated this need higher than those who had previous experience.

Regulation of Visitation: The final research question was: How do patients who have sustained an MI and their families perceive regulation of their visitation? Questions 22 and 23 on the questionnaire pertained specifically to patient regulation of visitation. Several variables were examined to determine which, if any, were associated with patient and family assessment of the need to regulate visiting. The variables examined were CCU experience, sex of the subject and status of the subject (patient or visitor). Tables 7 and 8 list the results of each of the variables for questions 22 and 23, respectively. Approximately 63% of both patients and families rated to have the patient regulate when he or she would have visitors as at least "important". Patient regulation of the number of visitors was rated as "important" by 63.4% of the patients and 60% of the family members.

As noted by the percentages, both those with and without previous CCU experience tended to rate questions regarding patient regulation of the times or numbers of visitors equally high (Tables 7 and 8).

More male patients than female patients rated the regulation of visiting times and the number of visitors as important (73.7% and 68.5% versus 45.5% and 54.6% respectively). However, there was no difference

Table 6

**Differences in Visitation Needs Based on History of a Previous MI**

<b>Needs</b>	<b>Previous MI (n = 11) <math>\bar{x}</math></b>	<b>No Previous MI (n = 21) <math>\bar{x}</math></b>	<b>df</b>	<b>t</b>	<b>p</b>
To have nurses respond to telephone calls from family about the patient's condition.	2.82	3.62	30	-2.20	.035
To have nurses keep the family informed about the patient's condition.	3.00	3.71	13.68	-1.63	NS
To have nurses relay phone messages from the family to the patient.	2.91	3.62	13.69	-1.58	NS
To have nurses reassure family members when the patient is stable enough for them to leave the hospital waiting area.	3.27	3.67	30	-1.12	NS
To have nurses regulate how many people can visit at one time.	3.45	3.24	30	0.54	NS
To know what time during the day and evening people will be allowed to visit in the CCU.	3.27	3.85	11.23	-1.68	NS
To have CCU visiting hours posted or written down.	3.45	3.71	30	-0.80	NS
To have nurses check to see if visitors have concerns or problems they need help with when they enter CCU to visit.	3.09	3.19	30	-0.24	NS
To have nurses regulate at what times during visiting hours people can enter CCU to visit.	3.10	3.45	28	-0.85	NS

Table 6 (continued)

**Differences in Visitation Needs Based on History of Previous MI**

Needs	Previous MI (n = 11) x	No Previous MI (n = 21) x	df	t	p
To have nurses restrict visitation if the patient is experiencing chest pain.	3.45	4.00	10.00	-1.49	NS
To have the nurse explain the patient's condition to people when they enter CCU to visit.	3.00	3.00	28	0.00	NS
To permit only immediate family members (excluding nonfamily members) to visit in CCU.	3.45	3.00	29	1.05	NS
To have nurses explain that family members can touch the patient.	2.91	2.75	29	0.34	NS
To have chairs at the bedside for visitors.	2.73	2.81	30	-0.19	NS
To allow friends as well as family to visit in CCU.	2.09	2.25	29	-0.33	NS
To have the patient regulate when he or she will have visitors.	2.73	2.79	28	-0.13	NS
To have the patient regulate how many visitors may visit at one time.	2.45	3.00	28	-1.09	NS

Table 7

**Ratings for Question 22: Patient Regulation of Times of Visits**

	<u>Not Important</u> (% Responses 1 & 2)	<u>Important</u> (% Responses 3 & 4)
Patients ( $\bar{x}$ = 2.77)	36.7 (11)	63.3 (19)
Families ( $\bar{x}$ = 2.80)	36.6 (11)	63.3 (19)
Previous CCU Experience ( $\bar{x}$ = 2.89)	35.1 (13)	64.8 (24)
No Previous CCU Experience ( $\bar{x}$ = 2.61)	39.1 ( 9)	60.8 (14)
Male Patient ( $\bar{x}$ = 2.95)	26.3 ( 5)	73.7 (14)
Male Family Member ( $\bar{x}$ = 2.60)	40.0 ( 2)	60.0 ( 3)
Female Patient ( $\bar{x}$ = 2.46)	54.6 ( 6)	45.5 ( 5)
Female Family Member ( $\bar{x}$ = 2.84)	36.0 ( 9)	64.0 (16)

Note. Ratings 1 to 4 are on a likert scale with 1 indicating "not at all important to me" to 4 indicating "very important to me." To account for missing data, valid percents were used.

Table 8

**Ratings for Question 23: Patient Regulation of the Number of Visitors**

	<b>Not Important</b> (% Responses 1 & 2)	<b>Important</b> (% Responses 3 & 4)
Patients ( $\bar{x}$ = 2.80)	36.7 (11)	63.4 (19)
Families ( $\bar{x}$ = 2.73)	40.0 (12)	60.0 (18)
Previous CCU Experience ( $\bar{x}$ = 2.73)	40.5 (15)	59.4 (22)
No Previous CCU Experience ( $\bar{x}$ = 2.83)	34.7 ( 8)	65.2 (15)
Male Patient ( $\bar{x}$ = 2.84)	31.6 ( 6)	68.5 (13)
Male Family Member ( $\bar{x}$ = 2.40)	60.0 ( 3)	40.0 ( 2)
Female Patient ( $\bar{x}$ = 2.73)	45.5 ( 5)	54.6 ( 6)
Female Family Member ( $\bar{x}$ = 2.80)	36.0 ( 9)	64.0 (16)

Note. Ratings 1 to 4 are on a likert scale with 1 indicating "not at all important to me" to 4 indicating "very important to me." To account for missing data, valid percents were used.

in ratings between male and female family members. The regulation of the times of visits was rated similarly by both male and female members with 64% of the female family members rating this need as at least "important" versus 60% of the male family members. More female family members rated patient regulation of the number of visitors as important than male family members (64% versus 40%).

Comments were also requested concerning what was good about the CCU visiting policy and what could be changed in the policy. These individual comments were compared to the individual rating of questions 22 and 23 which pertain to patient regulation of visitation. Multiple comments were recorded. Many specifically dealt with situations in which the present visiting policy should be altered. Overall, irregardless of how participants rated the questions related to regulation of visitation, those who commented "no change", or "none", in response to the question concerning changing the present CCU visiting policy consisted of 11 patients and 23 family members. This was approximately half of the participants. Other comments tended to revolve around three issues; individualizing visitation based on the patient's condition, allowing spouses to visit longer, and allowing family members from out of town to visit longer. Seven visitors and five patients commented that visiting should be individualized based on the patient's condition. An equal number of patients and visitors (four each - two were a patient-family pair) commented that out of town visitors should be allowed to visit longer. One patient and one visitor, not of the same family, felt spouses should have special privileges.

Of those participants who rated either question concerning regulation of visitation as "not at all important to me" or

"semi-important", comments concerning individualizing visitation were noted (five visitors and two patients). Also, two persons (one visitor and one patient) commented that out of town visitors should be allowed longer to visit. In addition, three respondents felt the number of visitors should remain as it is currently, one visitor at a time. One patient thought the number of visitors should be increased to two at a time.

### Summary

The sample characteristics have been described in this chapter. The research questions have also been answered and variables which may have effected the perceived visitation needs of patients and their families have been analyzed. Patient and family written comments were also analyzed in order to determine if any relationship existed between the comments and the ratings of the questions pertaining to patient regulation of visitation.

## CHAPTER V

### SUMMARY

#### Introduction

The purpose of this study has been to identify the perceived visitation needs of patients with myocardial infarction (MI) and their families, and to determine if their needs differ from one another. Variables such as sex, previous CCU experience, and previous MI have also been examined to determine if they impact on patients' and families' visitation needs. In this chapter a discussion will be presented on the significance of the data analysis, as well as the nursing implications of this study. Limitations, as well as recommendations as a result of this study, will also be presented. Ideas for future research will also be included.

#### Discussion of the Study Findings

Patient and Family Visitation Needs. The first research question was: "What are the perceived visitation needs of patients who have sustained an MI and their families?" The top five needs were the same for both groups but ranked in a slightly different order with the first three needs being exactly the same. For patients the top five needs were:

- to restrict visiting if the patient had chest pain.
- to know what time of the day and evening people could visit in the CCU.
- to have CCU visiting hours posted or written down.
- to reassure the family when the patient is stable enough for them to leave the waiting area.
- to keep the family informed of the patient's condition.

For families, the top five needs were the same except the need to have nurses reassure the family when they can leave the waiting area was ranked lower by family members (fifth as opposed to fourth by patients). The general congruence of these needs indicates these are primary visitation needs. Furthermore, of the top ten needs of patients, families identified almost the same ten needs with the exception of the need for nurses to regulate at what times people could visit. This need was ranked twelfth by families but eighth by patients. The lower rating of this need by families may indicate they do not feel visiting times require additional regulation by the nurse (e.g. a visiting policy is enough).

A t-test confirmed no significant difference in means between patient and family item responses at the .05 level of significance. However, one noticeable difference was found in that family members tended to rate "to permit only immediate family to visit in CCU" considerably higher than patients. Ninety percent of family members rated it "very important" versus 58.1% of patients who gave it the same rating. This rating difference may have to do with a greater awareness on the part of the family members concerning the seriousness of the situation. Family members may also be concerned about the patient being able to rest if too many people are allowed to visit.

Since the instrument used in this study was a modified version of Boykoff's (1986) questionnaire, it was expected that differences in rankings between studies would be noted. Boykoff's patient group rated "nurses responding to phone calls from family about the patient's condition" as first, whereas her family member group rated this fourth. In the present study, this need was ranked slightly higher by the patient

group than the family member group (seventh versus ninth respectively). These needs may have been rated lower in the present group because of the custom of this CCU to encourage phone calls at any time. The family thus may feel freer to inquire by phone about the patient's condition, thereby decreasing the priority of this need.

The second and third needs in Boykoff's (1986) study were ranked the same for both patient and family groups. They were: "nurses keeping family informed about the patient's condition" and "nurses relaying phone messages from family to the patient." The need to keep the family informed was in the top five needs for both patients and families in the present study. Also, in the present study the need to relay phone messages to the patient was ranked sixth and seventh for patients and families, respectively.

Nurses regulating how many people could visit at any one time was ranked fifth in Boykoff's patient group, but tenth by family members. This need was ranked similarly for both patient and family groups in the present study, ninth and eighth, respectively. This finding may indicate that patients and visitors were primarily satisfied with the current policy of allowing one visitor to visit at a time. This actually was the specific comment by three participants.

Nurses regulating the times people could visit was rated ninth by patients in Boykoff's (1986) study, but given a lower ranking (twelfth) by family members. In the present study, a similar ranking was found. However, in Boykoff's study she found that patients and families rated the need for the nurse to regulate the number of visitors that could visit at one time higher than having the nurse regulate the times of visits. In the present study, patients rated the need

for the nurse to regulate the times of visits just above the need to regulate the number of visitors. However, families in this study did rate these needs similarly to Boykoff's group. The need for nurses to regulate the number of visitors was ranked eighth and the need for nurses to regulate the times of visits was ranked twelfth. This finding was similar to that of Yamamoto (1990), who found family members rated changing visitation times as their least important need. Further research is necessary to determine if patients and families both agree that an increase in the number of visitors who visit at one time is in order.

Consistent with Boykoff (1986) was the ranking of the need to allow friends to visit in the CCU as the lowest need for both patients and families. This indicates that not allowing friends to visit in CCU is indeed an appropriate restriction.

In the present study, Boykoff's (1986) questionnaire was modified, adding two questions about the patient regulating visitation. The need to have the patient regulate how many and/or when visitors visit was ranked low for both patient and family groups. From the comments on the questionnaire, it may be that rather than patient regulation of visitation, flexible visitation as determined by the nurse may be more desirable.

The second research question was intended to determine if there was a difference between patient and family visitation needs. One need was found to have a significant difference in means between the two groups. This was the need to permit only immediate family in the CCU ( $p = .042$ ). Families tended to rate this need as more important than patients. Again, this may indicate families' realization of the

seriousness of the patient's condition.

Based on the above data there appears to be only a minor difference in the visitation needs of patients and families. This indicates their needs are essentially congruent; therefore, if nurses are meeting the visitation needs of the patient they should also be meeting the needs of the family. This is important since by meeting the needs of the family, they may be able to better contribute to the recovery of the patient (Boykoff, 1986; Mather, et al, 1971).

Boykoff (1986) assessed correlations of visitation needs between patients and families rather than differences. For this reason, it is difficult to compare the results of the present study with her study. She found three needs to be significantly correlated. These were to allow friends to visit in MICU, to have nurses relay phone messages to the patient and to leave visiting hours as they were. Unfortunately, no other literature could be found that compared family and patient needs to determine if there tend to be differences between the two groups. However, in Boykoff's study, rankings of needs were different for both patients and families indicating that patient and family needs may not always be prioritized similarly. However, in the present study this was not found to be true. A portion of this discrepancy may be explained due to the visiting policies and the degree of enforcement of the policy in the two units (Boykoff's MICU and the present study's CCU). In her study, Boykoff did not supply information concerning the unit's visiting policy, therefore it is difficult to determine the influence this may have had.

#### **Variables Effecting Patient and Family Visitation Needs**

Sex. While generally no differences in patient and family

visitation needs were discovered, there was a slight difference between male and female family members on one question. Forty-eight percent of the female visitors rated for the patient to regulate how many visitors visited at one time as more important than male visitors (40%). This may be a result of the small number of male visitors who participated in the study, therefore not a true trend.

Another reason may be that women tend to be socialized to be more social than men (Smith & Fontana, 1981). For example, women may not mind seeing many people at once, whereas men may prefer to spend their time one-on-one or by themselves.

CCU Experience. The fourth research question was: "Are the perceived visitation needs of patients and families with no previous CCU experience different from those with previous CCU experience?" At the 0.05 level of significance, no difference was found. Two questions had p-values slightly higher than 0.05 ( $p = 0.055$  and  $p = 0.056$ ). These questions dealt with permitting only immediate family members to visit in CCU and knowing what time during visiting hours people could visit. Interestingly, those with previous experience tended to rate the former question higher (mean 3.56 versus 3.12). As expected, those without previous CCU experience tended to rate higher the need to know what time during visiting hours they could visit (mean 3.92 versus 3.56).

These results seem to indicate that it is important to continue to provide visitors with a written copy of the visiting hours. This is currently done. Also, for whatever reason, after a CCU experience, patients believe only immediate family should visit in CCU. This is further validated by the present study's ranking, as well as Boykoff's

(1986) ranking of the need to allow friends to visit in CCU as the lowest need.

History of Previous MI. The fifth research question was: "Are the perceived visitation needs of patients who have sustained a previous MI different from those patients with no prior history?" The only need for which there was a difference between those patients with and without a previous MI was in reference to nurses responding to family members' phone calls concerning the patient. Those patients with no prior history of an MI rated this need higher than those who had sustained a previous MI (item mean of 3.62 versus 2.82, respectively).

Based on her CCU experience, the researcher expected to see a much greater difference between needs of the two groups. For instance, with the questions concerning nurses regulating the times and numbers of visitors, a lower mean was expected for those with a history of prior MI because they would have an idea of what to expect and possibly would not be quite as frightened of the experience. Therefore, they would want to have more control. However, it may be that these patients actually are more concerned about having suffered another MI. Therefore, regulating visiting becomes another stressor they do not want to encounter. According to Neuman's (1989) theory, it is important to minimize as many patient stressors as possible since the multiple impact of these stressors may decrease the effectiveness of the flexible line of defense and allow a reaction from one or more of the stressors to occur. By meeting the self-identified needs of the individual and family, the distance between the flexible and normal lines of defense are decreased, thereby decreasing the likelihood of penetration of the defenses by stressors (Neuman and Young, 1972).

Regulation of Visitation. The final research question was: "How do patients who have sustained an MI and their families perceive regulation of their visitation?" The item frequencies indicated that patient regulation of visitation was a low visitation need. However, after analyzing the comments in comparison to the actual rankings of the two regulation questions, it appears that an alteration in the present policy is desired.

By item ranking, questions 22 and 23 regarding the timing of visits and the number of visitors were listed as sixteenth and thirteenth, respectively, by patients. This was out of a total of 17 items. Families rated them similarly as fourteenth and fifteenth, respectively. However, more than half (63.3%) of all participants rated to have the patient regulate visiting times as at least "important".

The issue of the patient regulating the number of visitors was also one which the majority of respondents indicated was at least "important" (63.4% of patients and 60% of family members). Overall, a t-test indicated there was no statistically significant difference between patient and family responses to these two questions. There was also no difference found between those with previous CCU experience or history of a previous MI.

Male and female patients had differences in their ratings on the questions related to regulation of visitation. Female patients rated the need for the patient to control the number of visitors who visit at one time as more important than male patients. However, female patients rated the need to regulate when people visited as much lower in importance. This need was rated similarly for both male and female patients. This indicates that female patients want to have some

self-regulation relating to visitation, but they do not want to accept responsibility for regulating when people visit.

Male patients rated both self-regulation questions similarly. In response to the question concerning patient regulation of times of visitation, male patients tended to rate the need as either "important" or "very important" (73.7%), or "not important at all to me" (26.3%). For the question concerning the number of visitors, twice as many male patients (13 or 68.5%) rated to regulate this versus those who rated it as "not at all important to me" (six or 31.6%). These data indicate that the majority of male patients have strong feelings about regulating visiting, to one extreme or the other. Neither of these questions was rated as "semi-important" by any of the male patients.

These results suggest that individualized visiting may be appropriate as a way of meeting the needs of both groups of patients, male and female. This idea has been supported, implemented and evaluated in the literature (Brannon, Brady & Gaily, 1990; Dunkel & Eisendrath, 1983; Hamner, 1990; Owen et al, 1989; Sime & Kelley, 1989).

Although the sample of male visitors was small (six), there was a definite division concerning the importance of regulating the times of visits. The need was not rated as "semi-important" at all; it was either rated as "not at all important", "important", or "very important". This may be because some men may still be in the workforce and the restricted visiting times in CCU may make it more difficult for them to visit. Or it may be difficult to get a ride and have a person wait for a period of time in order for the visitor to visit for a length of time. Therefore, if the times were at the patient's discretion, the male visitors, all of whom were spouses in this study, could come

when it best suited them. Regulating the number of visitors tended to be a lower need for male visitors, again perhaps because of the socialization of men and women. Women are socialized to be more group oriented, whereas men are socialized to be independent (Smith & Fontana, 1981).

Questionnaire Comments. Approximately half of the participants commented "no change" or "none" in response to the question "What changes could be made in the Coronary Care Unit's visiting policy?" This response was not always correlated to the ratings of questions 22 and 23. This may indicate that people were happy with the arrangement, or, as it has been suggested in the literature, they are grateful for the care they or their family member has received and do not wish to criticize anyone (Boykoff, 1986).

The other comments tended to revolve around three issues; individualization of visitation based on the patient's condition, out of town family members, and allowing spouses to visit longer. A total of 12 participants (18%) commented that visitation should be individualized. Of those, seven rated questions 22 and 23 as "not at all important" or "semi-important", which seems to indicate while they do not want the patient to regulate visitation, they do want it individualized.

Eight (13%) of the respondents commented that out of town family should be treated differently, and two (3%) of the participants felt spouses should be allowed special visitation rights.

Thirty-four percent, whether or not they felt the patient should regulate visiting, felt some type of change in the existing CCU visiting policy could be beneficial. The fact that these comments were made

seems to indicate that individualization of visitation is not currently being practiced.

Since one of the questions addressed patient regulation of the number of visitors, it is interesting to note that three respondents felt that the number of visitors should remain as it is currently, one at a time. This is confirmed in the literature, that a set number of visitors, usually one or two, needs to be regulated by the unit (Kirchoff, 1982; Stockdale and Hughes, 1988).

### **Limitations of the Study**

Sample Size. Due to the small number of participants, these results must be viewed cautiously. These results also have limited generalizability due to the location of the study (e.g. a small CCU in a rural hospital on the Eastern Shore of Maryland).

Sample of Convenience. Another limitation of the study was the non-random selection of the subjects. Participants were all volunteers and may have created a biased sample. Also, since the patients were approached while still in CCU, they may have agreed to participate out of a feeling of obligation and as stated earlier, may have not wanted to be critical of the unit. Thus, the sample may not represent a true sample of the population.

Self-report. Use of a questionnaire, and allowing the participant to complete it alone, always allows room for error. Persons may not understand questions, or the style of the questions, and may not answer them truthfully. Also, with use of a Likert-type scale the middle two ratings may not have been interpreted the same by all participants. Writing out the equivalent importance of all the rates may have eliminated this potential ambiguity.

In order to alleviate as much potential error as possible, the researcher made every effort to explain how confidentiality would be protected, and offered assistance in reading the questionnaire to all participants in case they had difficulties reading. This offer was accepted on two occasions, both times by patients. It was felt that by the researcher reading the questions, any misunderstandings about the wording of an item, or the rating system could have been clarified immediately.

Cross-sectional Design. Another limitation of the study was the use of a cross-sectional design. Due to time and budget constraints of the research project, alternative studies were not feasible. Since the cross-sectional design is about one point in time, trends and possible changes that occur in patients and families perceived visitation needs over time were not identified.

### **Implications for Nursing**

Hospitalization is stressful for the entire family. In order for both patient and family to recover from this situation, individualization of visitation is imperative. Based on Neuman's (1989) theory of promoting family support, the flexible line of defense of the patient is strengthened by family support. This decreases the risk of the patient being compromised due to stressors.

This is an area in which education for critical care nurses is essential. The frame of mind continues to be to keep the family away so nurses can take care of the patient (Kirchoff, 1985). However, without assessing the family's functioning, this may be a grave oversight.

Based on the results of this study, individualization of visitation

appears to be the patient's and family's desire, more than patient regulation of visitation. Nurses need to be aware of this need, and address ways to meet it. One suggestion is for visiting contracts, which help ease the transition for nurses from very restricted visiting, to a more flexible visitation (Owen, et al, 1989). This would allow for the patient, family, and nurse to develop mutually agreed upon visiting regulations.

### **Recommendations**

Based on the results of this study, it is recommended that the enforcement of the present CCU visiting policy be altered. At present, the policy allows one person to visit for five to ten minutes of each one-half hour, during three separate two hour periods. The policy also states visiting is at the nurse's discretion, but that discretion generally is expressed as restrictions. Based on comments noted in the questionnaires, this policy is being enforced without nurse's use of discretion in making visitation flexible.

### **Suggestions for Further Research**

Based on the findings of this study, further studies should be directed toward:

- replicating this study, except with a larger sample size to determine if similar results are found. The effort should also be made to have equivalent samples of male and female patients and visitors.
- assessing if patients and families prefer individualized visitation, as opposed to patient regulation of visitation.
- assessing for a difference in visitation needs between different races or ethnic groups. Neither group was addressed in the

present study. If differences do exist, this knowledge would be important to improve the overall nursing care for specific patients and families.

- use of an experimental and a control group would allow a much stronger study to determine if indeed there is a difference in satisfaction of visitation between the two groups.

### Summary

This chapter answered and discussed this study's research questions concerning patient and family visitation needs in the CCU. Variables which were thought to influence these needs were also discussed and comments written by the participants were analyzed. The limitations of this study include use of a small sample size and use of a convenience sample. Use of a self-report and cross-sectional design were also addressed as limitations of the study. Based on the study results, nursing implications were outlined and recommendations were suggested for further research. Changes were also recommended for the visiting policy in the CCU in which this study was conducted.

**APPENDIX 1**

## DISCLOSURE FORM

I am currently conducting a study on the visitation needs of patients and their families in the Coronary Care Unit. I am seeking the assistance of the patient and his/her family members (or other significant person) in completing a questionnaire concerned with identifying important visitation needs.

The questionnaire is brief and should take no longer than ten minutes to complete. The information will be kept completely confidential. No names will appear on the questionnaire.

Your participation in this study is completely voluntary and will in no way affect the care you or your family member receives. You may leave any questions unanswered or may choose not to finish the questionnaire. Your participation is very valuable and will help increase the knowledge that is necessary to care for patients and their families.

If you have any questions about this study or would be interested in the results, please contact Laura Crum, RN, Coronary Care Unit at Peninsula General Hospital Medical Center, Salisbury, Maryland 21801, or Route 2, Box 139, Parsonsburg, Maryland 21849. Telephone (home) 301-742-0457 or (work) 301-546-6400, ext. 5223. Thank you for your assistance.

I have read this form or had it read to me, and consent to participate in this study.

\_\_\_\_\_  
Patient

\_\_\_\_\_  
Date

\_\_\_\_\_  
Family Member

\_\_\_\_\_  
Date

**APPENDIX 2**

Statement of Approval  
Committee on Human Volunteers  
Salisbury State College

93

Date March 18, 1991

MEMORANDUM TO: Dr. Karin Johnson/Laura Wagner Crum

FROM : Chairman, Committee on Human Volunteers

SUBJECT : Human Volunteers study

Visitation needs of patients and their families in the Coronary Care Unit  
Title of Study

Salisbury State University

Grant Application No.

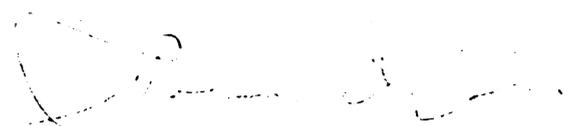
Sponsoring Agency

Dr. Karin Johnson

Principal Investigator or Program Director

The Committee on Human Volunteers has considered the above application and, on the basis of available evidence, records its opinion as follows:

- (1) The rights and welfare of individual volunteers are adequately protected.
- (2) The methods to secure informed consent are fully appropriate and adequately safeguard the rights of the subjects (in the case of minors, consent is obtained from parents or guardians).
- (3) The investigators are responsible individuals, competent to handle any risks which may be involved, and the potential medical benefits of the investigation fully justify these studies.
- (4) The investigators assume the responsibility of notifying the Committee on Human Volunteers if any changes should develop in the methodology or the protocol of the research project involving a risk to the individual volunteers.

  
Chairman Dr. Francis I. Kane

cc: Laura Wagner Crum

**APPENDIX 3**

MEDICAL STAFF  
SERVICES



100 East Carroll Street  
Salisbury, Maryland 21801-5493  
(301) 543-7007

August 1, 1990

Laura W. Crum, RN, BSN  
Coronary Care Unit  
PGHMC  
100 E. Carroll Street  
Salisbury, MD 21801

Dear Laura:

We have received permission from the PGHMC Research Committee for you to carry out the study that you have proposed regarding visitation needs in the CCU.

Good luck on the study, and we will look forward to receiving a copy when it is completed.

Sincerely,

A handwritten signature in cursive script that reads 'Jack'.

Louis H. Himes, II, M.D.  
Consultant on Medical Affairs

LHH:pw

**APPENDIX 4**



July 6, 1990

In Reply Refer To:

Laura Wagner Crum, RN, BSN  
Rt. 2, Box 139  
Parsonburg, MD 21849

Dear Laura:

I am pleased you are interested in the visitation needs of patients and their families. How nurses meet individual needs can make a difference in the quality of comfort during hospitalization in intensive care. You have my permission to adopt the tool I used for your research.

You might consult the Health Instrument File to ascertain if any reliability data has been collected. Validity was tested by piloting the instruments on patients, lay persons, and nurses.

Note that I used two forms. One questionnaire was for patients and the other for family members. Wording needs to be reflective of you audience in questions 1 - 21.

I might suggest you label your Likert scale "Important to Me" and "Not Important" spelling out the word "Important". This I believe will help families.

For question 20, do you mean as a visitor or as a patient?

For question 21, do you want to list options. For Example:

- (a) spouse
- (b) sister
- (c) brother
- (d) child
- (e) parent, etc.

For question 22, are you interested in the patient's medical history or if they have ever been hospitalized in an ICU and received visitors there? I'm unsure of the question.

Although we, as nurses, are very adept at filling our "Comment" sections of questionnaires, I have found patients and families are not. You might find it helpful to make them two columns in the comment section to give them more direction. For example:

Comments:

A. Changes that should be made in this hospital's ICU visitation policy:

---

---

B. When I visited (or family visited) I really appreciated that the nurse did this:

---

---

Best wishes on learning what you seek to know. I would appreciate a copy of your results if practical for you to send later on. Thank you.

Sincerely,

*Susan L. Boykoff*  
Susan L. Boykoff, RN, MSN

**APPENDIX 5**

**VISITATION NEEDS QUESTIONNAIRE**

Adapted from Boykoff (1986)

1. Are you the **Patient** or **Visitor**? (please circle)
2. What is your age? \_\_\_\_\_
3. What is your sex? **Male** or **Female**
4. What is your relationship to the patient? \_\_\_\_\_
5. Have you or a family member ever before been a patient or a visitor in a Coronary Care Unit? **Yes** **No**

Answer only if you are the **Patient**:

6. Have you ever before had a heart attack? **Yes** **No**

Please circle the number which most accurately reflects your feelings about the importance of each action listed. The scale ranges from 1, **Not at all important to me** to 4, **Very important to me**, with two selections between these extremes.

- |   | Not<br>at all<br>impt<br>to me |   |   | Very<br>impt<br>to me |
|---|--------------------------------|---|---|-----------------------|
| 7. To have nurses respond to telephone calls from family about the patient's condition.                               | 1                              | 2 | 3 | 4                     |
| 8. To have nurses keep the family informed about the patient's condition.   | 1                              | 2 | 3 | 4                     |
| 9. To have nurses relay phone messages from the family to the patient.  | 1                              | 2 | 3 | 4                     |
| 10. To have nurses reassure family members when patient is stable enough for them to leave the hospital waiting area. | 1                              | 2 | 3 | 4                     |
| 11. To have nurses regulate how many people can visit at one time.  | 1                              | 2 | 3 | 4                     |
| 12. To know what time during the day and evening people will be allowed to visit in the CCU.                          | 1                              | 2 | 3 | 4                     |
| 13. To have CCU visiting hours posted or written down.  | 1                              | 2 | 3 | 4                     |

	Not at all impt to me			Very impt to me
14. To have nurses check to see if visitors have concerns or problems they need help with when they enter CCU to visit.	1	2	3	4
15. To have nurses regulate at what times during visiting hours people can enter CCU to visit.	1	2	3	4
16. To have nurses restrict visitation if the patient is experiencing chest pain.	1	2	3	4
17. To have the nurse explain the patient's condition to people when they visit.	1	2	3	4
18. To permit only immediate family (excluding nonfamily members) to visit in CCU.	1	2	3	4
19. To have nurses explain that family members can touch the patient.	1	2	3	4
20. To have chairs at the bedside for visitors.	1	2	3	4
21. To allow friends as well as family to visit in CCU.	1	2	3	4
22. To have the patient regulate when he or she will have visitors.	1	2	3	4
23. To have the patient regulate how many visitors may visit at one time.	1	2	3	4

Comments:

A. What was good about the visitation policy in this Coronary Care Unit? \_\_\_\_\_

B. What changes could be made in the Coronary Care Unit's visitation policy? \_\_\_\_\_

## REFERENCES

- Bay, E. J., Kupferschmidt, B., Opperwall, B. J., & Apeer, J. (1988, February). Effect of the family visit on patients' mental status. Focus on Critical Care, 5(1), 10-16.
- Bedsworth, J. A., & Molen, M. T. (1982). Psychological stress in spouses of patients with MI. Heart and Lung, 11, 450-456.
- Boykoff, S. L. (1986, November). Visitation needs reported by patients with cardiac disease and their families. Heart and Lung, 15, 573-578.
- Brannon, P., Brady, A. & Gailey, A. (1990, February). Visitation in the CCU: From "rules to contracts." Nursing Management, 21(12), 64M, 64P.
- Brown, A. (1976). Effects of family visits on the blood pressure and heart rate of patients in the coronary care unit. Heart and Lung, 5, 291-296.
- Bruya, M. A. (1981). Planned periods of rest in the intensive care unit: Nursing activities and intracranial pressure. Journal of Neurosurgical Nursing, 13(4), 184-194.
- Chatham, M. (1978). The effect of family involvement on patients' manifestations of post-cardiotomy psychosis. Heart and Lung, 7, 995-999.
- Daley, L. (1984). The perceived immediate needs of families with relatives in the intensive care setting. Heart and Lung, 13, 231-237.
- Dockter, B., Black, D. R., Hovell, M. F., Engleberg, D., Amick, T., Neimier, D., & Sheets, N. (1988, August). Families and ICU nurses: Comparison of perceptions. Patient Education Counselor, 12, 29-36.

- Dracup, K. & Breu, C. (1978). Helping spouses of critically ill patients. American Journal of Nursing, 78, 50-53.
- Dunkel, J. & Eisendrath, S. (1983, May). Families in the ICU: Their effect on staff. Heart and Lung, 12, 258-261.
- Freismuth, C. (1986). Meeting the needs of families of critically ill patients: A comparison of visiting policies in the intensive care setting. Heart and Lung, 15, 309-310.
- Friedman, M. M. (1986). Family Nursing: Theory and Assessment (2nd ed.). Norwalk, Conn.: Appleton-Century-Crofts, 83.
- Fuller, B. F. & Foster, G. M. (1982). The effects of family/friend visits versus staff interaction on stress/arousal of surgical intensive care patients. Heart and Lung, 11, 457-463.
- Gardner, D. & Stewart, N. (1978). Staff involvement with families of patients in critical care units. Heart and Lung, 7, 105-110.
- Hamner, J. B. (1990, January). Visitation policies in the ICU: A time for change. Critical Care Nurse, 10(1), 48-53.
- Hampe, S. O. (1975). Needs of the grieving spouse in a hospital setting. Nursing Research, 24, 113-119.
- Hermiz, M. E. & Meininger, M. (1986). Neuman's systems theory, in A. Marriner's (ed.), Nursing Theorists and Their Work (pp. 313-331), St. Louis: The C. V. Mosby Company.
- Heater, B. S. (1985). Nursing responsibility in changing visiting restrictions in the ICU. Heart and Lung, 14, 181-186.
- Hickey, M. & Lewandowski, L. (1988, November). Critical care nurses role with families: A descriptive study. Heart and Lung, 47(6, part 1), 670-676.

- Johnson, P. T. (1988, July). Critical care visitation: An ethical dilemma. Critical Care Nurse, 8(6), 72-78.
- Kirchoff, K. T. (1982). Visiting policies for patients with myocardial infarction: A national survey. Heart and Lung, 11, 571-576.
- Kirchoff, K. T., Hansen, C. B., Evans, P., & Fullmer, N. (1985, September-October). Open visiting in the ICU: A debate. Dimensions of Critical Care Nursing, 4, 296-306.
- Leske, J. S. (1986). Needs of relatives of critically ill patients: A follow up. Heart and Lung, 15, 189-193.
- Lovejoy, N. C. (1987). Roles played by hospital visitors. Heart and Lung, 16, 573-575.
- Lynch, J. J., Thomas, S. A., Mills, M. E., Malinow, K., & Katchen, A. H. (1974). The effects of human contact on cardiac arrhythmia in coronary care patients. Journal of Nervous and Mental Disorders, 158, 88-99.
- Lynn-McHale, D. J. & Bellinger, A. (1988, July). Need satisfaction levels of family members of critical care patients and accuracy of nurses' perceptions. Heart and Lung, 17, 447-453.
- Mather, H. G., Pearson, N. G., Read, K. L., Shaw, D. B., Steed, G. R., Thorne, M. G., Jones, S., Guerrier, C. J., Eraut, C. D., McHugh, P. M., Chowdhury, N. R., Jafar, M. H., & Wallace, T. J. (1971). Acute myocardial infarction: Home and hospital treatment. British Medical Journal, 3, 334-339.
- Molter, N. (1979). Needs of relatives of critically ill patients: A descriptive study. Heart and Lung, 8, 332-339.

- Neuman, B. (1980). The Betty Neuman health care systems model: A total person approach to patient problems, in J. P. Riehl & C. Roy's Conceptual Models for Nursing Practice (pp. 119-131). New York: Appleton-Century-Crofts.
- Neuman, B. (1989). The Neuman Systems Model (2nd ed.). Norwalk, Conn.: Appleton & Lange.
- Neuman, B. M. & Young, R. J. (1972, May-June). A model for teaching total person approach to patient problems. Nursing Research, 21, 264-269.
- Norris, L. & Grove, S. K. (1986). Investigation of selected psychosocial needs of family members of critically ill adult patients. Heart and Lung, 15, 194-199.
- Owen, J., Hammonds, M., Brooks, B., Cain, C., Smith, I., & Mann, S. (1989, July). Visiting policies: Creating change without conflict. Nursing 89, 19(7), 32HH-32JJ.
- Prins, M. M. (1989). The effect of family visits on ICP. Western Journal of Nursing Research, 11(3), 281-297.
- Roberts, S. L. (1976). Behavioral Concepts and the Critically Ill. New Jersey: Prentice-Hall, Inc., 352-371.
- Rodger, C. D. (1983). Needs of relatives of cardiac surgery patients during the critical phase. Focus on Critical Care, 10(5), 50-55.
- Sickbert, S. F. (1989, July). CCU visitation: A summary of the literature. Journal of American Geriatric Society, 37(7), 655-657.
- Sime, A. M. & Kelly, J. W. (1983, October). Lessening patient stress in the CCU. Nursing Management, 14(10), 24-26.

- Smith, R. W. & Fontana, A. (1981). Social Problems: Role, Institutional, and Societal Perspectives (Chapter 7, pp. 164-190). New York: Holt, Rinehart & Winston.
- Stillwell, S. B. (1984). Importance of visiting needs as perceived by family members of patients in the ICU. Heart and Lung, 13, 238-242.
- Stockdale, L. L. & Hughes, J. P. (1988, December). Critical care unit visiting policies: A survey. Focus on Critical Care, 15, 45-48.
- Stubbs, D. (1989). A Comparison of Family Needs and Nurses' Perception of Family Needs. Unpublished masters' thesis, Salisbury State University, Salisbury, MD.
- Thomas, S. A., Lynch, J. J., Mills, M. E. (1975). Psychosocial influences on heart rhythm in the coronary care unit. Heart and Lung, 4, 746-750.
- United States Department of Health, Education & Welfare, Public Health Service. (1962). Elements of progressive patient care, no. 930-C-1. Washington, D.C.: Government Printing Office.
- United States Department of Health, Education & Welfare, Public Health Service. (1965). A facility designed for coronary care, no. 930-D-19. Washington, D.C.: Government Printing Office.
- Walker, B. B. (1972). The post-surgery heart patient: Amount of uninterrupted time for sleep and rest during the first, second, and third postoperative days in a teaching hospital. Nursing Research, 21, 164-167.
- Wright, L. M. & Leahey, M. (1987). Families and Life-Threatening Illness (pp 45-58). Springhouse, PA: Springhouse Corp.

- Yamamoto, S. (1990). Perceived Visitation Needs of Family Members of Postoperative Open Heart Patients During the Intensive Care Phase. Unpublished masters' thesis, University of Delaware, Newark, DE.
- Younger, S. J., Coulton, C., Welton, R., Juknialis, B., & Jackson, B. (1984). ICU visiting policies. Critical Care Medicine, 12, 606-608.
- Zetterlund, J. E. (1971). An evaluation of visiting policies for intensive and coronary care units. In M. Duffy, M. H. Anderson, B. S. Bergersen, M. Lohr, & M. H. Roses' (Eds.). Current Concepts in Clinical Nursing (volume 3, pp 316-325). St. Louis: The C. V. Mosby Co.

## CURRICULUM VITAE

Laura Wagner Crum  
139 Rushmore Drive  
Parsonsburg, Maryland 21849

(301) 742-0457

Date of Birth: November 20, 1961

Place of Birth: Lewes, Delaware

Marital Status: Married to Michael Crum

### EDUCATION

1979-1983 University of Delaware, Newark, Delaware  
Bachelor of Science in Nursing, 1983

Licensure: 1983  
Maryland, License Number R083401

1986-1987 University of Delaware, Newark, Delaware  
Graduate Program, College of Nursing

1987-1991 Salisbury State University, Salisbury, Maryland  
Graduate Student in Rural Health Nursing Program

Thesis: Visitation needs of patients and their families  
in the Coronary Care Unit

Master of Science in Nursing, expected May, 1991

### PROFESSIONAL ORGANIZATIONS

Maryland Nurses Association: general membership, December, 1989-

Sigma Theta Tau Nursing Honor Society, 1991-

Nursing Service Organization, Peninsula General Hospital Medical  
Center, 1990-

### COMMUNITY ORGANIZATIONS

American Heart Association, Basic Life Support Instructor, 1991-

**EMPLOYMENT**

5/82-8/82	Milford Memorial Hospital, Milford, Delaware Nurse Extern.
6/83-2/88	Peninsula General Hospital Medical Center, Salisbury, Maryland Registered Nurse, 4 East.
2/88-9/90	Peninsula General Hospital Medical Center Registered Nurse, Coronary Care Unit.
9/90 - Present	Peninsula General Hospital Medical Center Clinical Nurse Specialist, Medical/Surgical.