

1991

Patient Perceptions of Nurse Caring Behaviors

Patricia A. DeVries
Grand Valley State University

Follow this and additional works at: <https://scholarworks.gvsu.edu/theses>



Part of the [Nursing Commons](#)

ScholarWorks Citation

DeVries, Patricia A., "Patient Perceptions of Nurse Caring Behaviors" (1991). *Masters Theses*. 118.
<https://scholarworks.gvsu.edu/theses/118>

This Thesis is brought to you for free and open access by the Graduate Research and Creative Practice at ScholarWorks@GVSU. It has been accepted for inclusion in Masters Theses by an authorized administrator of ScholarWorks@GVSU. For more information, please contact scholarworks@gvsu.edu.

Patient Perceptions
of Nurse Caring Behaviors

By

Patricia A. DeVries

A THESIS

Submitted to
Grand Valley State University
in partial fulfillment of the requirements for the
degree of

MASTER OF SCIENCE IN NURSING

Kirkhof School of Nursing

1991

Thesis Committee Members:
Katherine Kim Ph.D., R.N.
Kay Kline Ph.D., R.N.
Nathalie Ostroot Ph.D.

ABSTRACT

PATIENT PERCEPTIONS
OF NURSE CARING BEHAVIORS

By

Patricia A. DeVries

The purpose of this study was to examine which nurse caring behaviors in the critical care unit are perceived as most important and least important by patients with myocardial infarction. A sample of 44 subjects responded to an open-ended question and an assessment scale, the Caring Behaviors Assessment. Two comparison groups of 22 subjects each were formed from the sample to determine if number of previous admissions to the critical care unit made a difference in perceptions of most important and least important nurse caring behaviors.

Descriptive statistics along with t-test, chi-square, and two-way analysis of variance were used to analyze the data. Findings include (a) behaviors that meet human needs are very important; (b) behaviors that are humanistic, sensitive, and reassuring are also very important; (c) behaviors that meet human needs, facilitate expression of feelings, and show sensitivity and respect are more important to patients who have had previous admissions to the critical care unit.

This is dedicated to all nurses who through caring behaviors seek to make a difference.

Acknowledgments

This first experience with nursing research was exciting and challenging. My appreciation goes to many people who supported and encouraged me in the long and sometimes difficult task.

A sincere thank-you to the chairperson of my committee, Katherine Kim, RN, PhD, for sharing with me her love for research and her expertise with the process. She thoroughly critiqued my work in a sensitive, kind manner. I also extend my thanks to Kay Kline, RN, PhD, and Nathalie Ostroot, PhD. As members of my committee they willingly shared their knowledge, time, and energy to help me grow in the research process.

To all the nurses who helped with identifying potential subjects for the study or who expressed an interest in the study, I also say thank-you. Lisa Dunbar, RN, was especially helpful and supportive during data collection.

My appreciation is extended to Cindy Coviak, RN, MSN, who led me patiently, step by step, as I analyzed my data. I definitely could not have done this without her guidance.

Finally, my deepest thanks goes to my husband, Ecko, and daughters, Lisa, Sara, and Susan, for their belief in me and my ability to complete this scholarly effort.

Table of Contents

List of Tables
vi

List of Appendices
vii

CHAPTER	PAGE
1 INTRODUCTION.....	1
Introduction.....	1
Purpose.....	3
2 LITERATURE REVIEW AND THEORETICAL FRAMEWORK.....	5
Literature Review.....	5
Theoretical Framework.....	19
Research Questions.....	22
Definitions.....	22
Assumptions.....	22
3 METHODOLOGY.....	23
Research Design.....	23
Sample and Setting.....	24
Instruments.....	25
Procedure.....	29
4 RESULTS.....	32
Characteristics of Subjects.....	32
Comparison of Two Groups.....	34
Research Question One.....	34
Research Question Two.....	38
Other Findings.....	40
5 DISCUSSION/LIMITATIONS/IMPLICATIONS.....	44
Discussion.....	44
Limitations.....	55
Implications.....	59
Recommendations.....	61
Conclusion.....	63
References.....	72

List of Tables

TABLE	PAGE
1. Caring Behaviors Assessment Subscale Items and Reliability.....	27
2. Comparison of Two Groups in Regards to Sample Characteristics.....	33
3. Age and Education Comparison of Two Groups.....	35
4. Twelve Most Important Caring Behaviors Assessment Items.....	36
5. Twelve Least Important Caring Behaviors Assessment Items.....	37
6. Ranking of Caring Behaviors Assessment Subscales by Mean Value.....	38
7. Comparison of Subscale Means for Two Groups.....	39
8. Interaction Between Group and Agency Variables.....	41
9. Caring Behaviors Assessment Subscales Ranking Compared with Findings of Cronin and Harrison (1988).....	45
10. Nine Most Important Caring Behaviors Assessment Items Compared with Findings of Cronin and Harrison (1988).....	47
11. Nine Least Important Caring Behaviors Assessment Items Compared with Findings of Cronin and Harrison (1988).....	48

List of Appendices

APPENDIX	PAGE
A. Caring Behaviors Assessment.....	64
B. Patient Demographic Data.....	68
C. Verbal Script.....	70
D. Consent Form.....	71

CHAPTER ONE

INTRODUCTION

Introduction

Caring has been described as the central and unifying domain for the body of knowledge and the practice of nursing (Leininger, 1981). The provision of care as the primary definer of nursing is supported by public opinion and by self-definition of the profession. The scope of nursing practice encompasses care, cure, and coordination (American Nurses' Association, 1980).

Florence Nightingale in the mid-1860's charged nurses to care for patients as whole persons and emphasized health and proper use of environmental resources for care (cited in Leininger, 1980). A recently released video from the American Journal of Nursing Company uses the "ethic of caring" as a major recruitment device and public relations message about nursing (cited in Fry, 1988). "Nurses together in caring" was the theme of Michigan's 1990 Nurse Week. The term care has been used persistently and continuously in nursing for more than a century. However, it has been one of the most neglected areas for systematic research (Gaut, 1983). Currently only a small percentage of nurses are systematically investigating and promoting care research.

Since the concept of care lies at the heart of nursing, research involving this phenomenon is significant. As the body of knowledge related to care grows, nursing will have a solid base on which to build education and practice. Research will help validate the distinct nature of nursing and will provide contributions from nursing for use by other disciplines (Leininger, 1980).

Caring activities were essential in the past for human survival, development, growth, wellness, recovery, and social relatedness, and they remain so today (Leininger, 1980). Nurses want to make a difference as they relate to their patients and provide personalized holistic care. As effects from biotechnology, scientific engineering, fragmented treatment, bureaucracy, and depersonalization increase and spread through our health care delivery system, so nurses must increase and spread the human care philosophy, knowledge, and practices in our systems (Watson, 1985). Naishitt (1982) in Megatrends notes that people need a "human ballast" to handle the intrusion of high technology into sensitive areas of life. Through caring, the nurse becomes that "human ballast" in the health care delivery system. Nurses have an ethical and social responsibility to their patients and to society to be the caretakers of care and the vanguards of society's human care needs (Watson, 1985).

The ongoing restructuring of the nation's health care system and the current economic environment in which care is

provided presents a unique opportunity to nursing (Buerbaus, 1986). Since high quality nursing care is the chief product of hospitals, now is the time for nurses to clarify the meaning and value of nursing's humanistic, caring behaviors from the perspective of those who consume nursing services, the patients. This knowledge can then be applied in a manner that positively influences management of hospitals and contributes to the power and status of nursing (Buerbaus, 1986).

Purpose

In the practical world of nursing, it is through enactment of nurse caring behaviors that patients feel cared for, and it is important that nurse caring behaviors are perceived by the patient as intended (Larson, 1987). Therefore, the replication study presented here examines which nurse caring behaviors in the critical care unit are perceived as most important and least important by patients with acute myocardial infarction. This group of patients was selected because of the critical nature of the illness, the vulnerability to the stress state, the high technology of the critical care environment, and the close nurse-patient contact warranted by the situation. Since effective caring promotes health and a higher level of wellness (Watson, 1979), it followed that this group of patients would benefit from systematically designed caring behaviors.

Although literature reveals caring as a widely accepted and essential component of nursing, theory based research

from the patient's point of view and in the critical care setting is limited (Cronin & Harrison, 1988). Further research and replication of previous studies is needed to validate nursing behaviors that make critically ill patients feel most cared for.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

Literature Review

The review of the literature will first focus on studies of caring done in the field of nursing. The literature related to theories of caring will then be examined.

Studies of caring. An early exploratory study of care was done by Henry (1975). Fifty patients receiving professional nursing care in the home were interviewed using open-ended questioning. The sample gave 214 responses specifying which behaviors of the nurse indicated caring to them. The responses were then sorted and categorized into three major categories: (a) what the nurse does, (b) how the nurse does, and (c) how much the nurse does. The largest number of responses (108 or 51%) fell into the category of "how the nurse does," and the category of "what the nurse does" received 78 (37%) responses. Most patients identified behaviors that were classified in a combination of "what the nurse does" and "how the nurse does" categories. When the data were analyzed according to patient characteristics, more patients with heart disease and more male patients identified nursing procedural items, a subcategory under "what the nurse does," than one would expect on the basis of their representation in the sample.

Henry (1975) concluded from her study that nurse behaviors that indicate care include both nursing skills based upon cognitive nursing knowledge and person skills based on knowledge of human behavior. The large number of responses that fell into the "how the nurse does" category underscores the importance to the patient of being regarded respectfully as a unique individual.

Limitations of the study by Henry (1975) include difficulty with categorization of responses, lack of generalizability to patients cared for in other settings, and lack of control for extraneous variables. Henry reported frequency of responses but did not determine the relative importance of the caring behaviors.

Brown (1981) conducted a study to identify, describe, and classify nursing behaviors that indicated care and also to examine task and affective dimensions of these behaviors. Using a 20 item Likert scale, Brown (1981) asked 80 hospitalized medical-surgical patients to rate the importance of nursing behaviors as indicators of affective and task dimensions of care. Fifty of these 80 patients also answered the open-ended question of "What does a nurse say and do that makes you feel cared for and about?" and described a critical incident in which they felt "cared for and about" by the nurse.

Analysis of results revealed that behaviors perceived as indicators of care were a combination of what the nurse did and what the nurse was like as a person. Brown (1986)

identified 8 major themes and a 4 part process of care from analysis of the critical incident reports. Behaviors focusing on tasks of providing care were identified as very important, although the affective component of care was also important.

The study by Brown (1981) supported the belief in nursing that nursing is made up of both "being" and "doing." Patients identified the importance of the nurses meeting their treatment needs and doing this in a way that protects and enhances the unique identity of each individual. A limitation of the study is the reliability coefficient of less than .70 for the Likert scale; however, this limitation was accepted by Brown (1981) because of the stage of development of instruments used to measure the concept of care.

The purpose of Larson's (1984) study was to determine which nurse caring behaviors were perceived by hospitalized cancer patients as being most important or least important. A convenience sample of 57 adult acute care hospital cancer patients utilized the Caring Assessment Report Evaluation Q Sort (Care Q) which consisted of 50 behavioral items ordered in six subscales of caring. The subscales included (a) accessible, (b) explains and facilitates, (c) comforts, (d) anticipates, (e) trusting relationship, and (f) monitors and follows through. The individual behavioral items on cards were sorted and ranked by the patient utilizing the Q methodology.

The patients in this study reported behaviors from "accessible" and "monitors and follows through" subscales as most important nurse caring behaviors. These findings resemble the indicators of care surveillance and demonstration of professional knowledge identified by adult medical-surgical patients in Brown's (1981) study. The patients in this study did not agree with Henry's home-care patients who indicated that "how the nurse does" is more important than "what the nurse does" (Henry, 1975). Larson (1984) established reliability of the Care Q instrument by test-retest with 82 oncology nurses. This resulted in a reliability coefficient of .79 for the five most important behavioral items and .63 for the five least important behavioral items. Construct validity was not determined. Limitations of the Q methodology and reliability and validity concerns of the Care Q instrument were identified by Larson as factors that preclude major recommendations and generalizability based on results of this study.

In a subsequent study, Larson (1987) utilized the same Care Q instrument with 57 registered nurses who interacted with oncology patients in the acute care setting. The aim of this study was to examine whether patients and nurses differed in their ranking of nurse caring behaviors. The univariate F statistic demonstrated a strong difference in the two groups on three of the six subscales. Nurses valued items from the "comforts" and "trusting relationship" subscales significantly more than did patients. In

contrast, cancer patients valued significantly more than the nurses did the behavioral items under "monitors and follows through" subscale. No further evaluation of reliability and validity of the Care Q instrument was noted in this study.

Mayer (1987) obtained similar findings in a replication of Larson's (1987) study. Using the Care Q instrument, developed by Larson (1984), Mayer compared the perceptions of nurse caring behaviors of 54 cancer patients and 28 oncology nurses. Although there was a significant overall correlation between patients' and nurses' perceptions of the 50 behaviors ($p < .01$), there were obvious differences among the subscales and specific behaviors. Nurses ranked "listens to the patient", and patients ranked "knows how to give good shots and manage equipment" as most important behaviors to convey caring. Mayer concluded that patients appear to value the instrumental, technical caring skills more than nurses do, while nurses value expressive behaviors more. The participant's forced task of the Q methodology was identified by Mayer as a limitation to this study. However, the reliability and validity of the Care Q instrument was not identified as a concern.

Keane, Chastain, and Rudisill (1987) utilized the Care Q instrument, developed by Larson (1984), to describe perceptions of 26 hospitalized rehabilitation patients and 26 primary care nurses regarding most and least important nurse caring behaviors. Nurses and patients identified "knows when to call the doctor" as the most important

behavioral item. "Monitors and follows through" and "is accessible" were identified by both nurses and patients as the most important subscales. The agreement between the two groups in this study may have been facilitated by primary care nursing. The continuity of care may have increased congruency of expectations and perceptions between caregiver and care recipient. Patient results are consistent with studies by Brown (1981) and Larson (1984) which emphasized surveillance and demonstration of professional knowledge as key indicators of care. The rehabilitation nurses emphasized self-care practices and patient active participation before affective behaviors, in contrast to Larson's (1987) study of oncology nurses. Keane et al., like Larson (1984) and Mayer (1987), noted limitations of the Q methodology. However, Keane et al. did not indicate that the reliability and validity of the Care Q instrument were limiting factors in their study.

Rieman (1986) utilized a phenomenologic approach to enter clients' worlds and gain insight into their perspectives of the nurse-client relationship. Ten nonhospitalized adults' descriptions of previous interactions with nurses were analyzed using Colaizzi's method of phenomenology. Significant statements were identified, meanings were formulated, clusters of themes identified, and finally a description of the essential structure of a caring and a noncaring interaction emerged.

Rieman (1986) found that the essential structure of a caring nurse-client relationship included the concept of the nurse's existential presence in responding to stated and unstated client needs. This involved the voluntary giving of oneself and listening to the client. As a result, the client experienced feelings of comfort and security. In a noncaring interaction, the nurse was physically present only, expended a minimal amount of energy, and was too busy to listen. The client felt belittled, and this resulted in frustration, anger, and fear.

The purpose of Cronin and Harrison's study (1988) was to identify nursing behaviors perceived as indicators of caring by patients with acute myocardial infarction. The replication study of nurse caring behaviors presented here is based on the study of Cronin and Harrison. Cronin and Harrison utilized a sample of 22 hospitalized patients. The patients were asked an open-ended question about their perceptions of nurse caring behaviors while in the critical care unit. The sample also completed the Caring Behaviors Assessment (CBA), a 5 point Likert scale, which lists 61 nursing behaviors ordered in seven subscales, congruent with Watson's (1979) "carative factors." The patients indicated the degree to which each behavior communicated caring.

Content analysis of responses to the open-ended question was conducted and results were compared with the 61 items on the CBA. Based on this analysis two additional behaviors were added to the CBA, bringing it presently to 63 items,

ordered in seven subscales. By use of the CBA, patients identified "human needs assistance" as the highest ranked subscale with a mean score of 4.60 and "expression of positive, negative feelings" as the lowest ranked subscale with a mean of 3.80. The two most important behavior items identified were "make me feel someone is there if I need them" and "know what they are doing" each with a mean score of 4.86. The least important behavior item was "visit me when I move to another hospital unit" with a mean score of 2.36. Nursing behaviors perceived as most indicative of caring by patients in this study focused on monitoring the patient and professional competence. These responses are consistent with results from other studies by Brown (1981), Larson (1984), and Mayer (1986) but differ with the findings of Henry (1975). Given the serious nature of myocardial infarction and the intensity of the critical care environment, Cronin and Harrison (1988) found it not surprising that patients valued close attention and competent care provided by the nurse.

Cronin and Harrison (1988) also found that patients who had been previously in the critical care unit gave a significantly higher rating to the "expression of positive, negative feelings" subscale ($p < .05$). They hypothesized that patients with prior critical care experience may have strong emotions about a repeated admission and may recognize their need to ventilate these feelings. However, this

finding could also be the result of the small sample size of this group (n = 9).

In summary, results of previous studies of caring seem to be influenced by the setting, the sample characteristics, the research design, and the instrument used to gather data for the study. Henry (1975) interviewed home care patients who perceived the nurse as caring by behaviors that fell under the category of "how the nurse does." This emphasizes the patient's need to be regarded as a person. Findings of Rieman's (1986) phenomenological study which led to a description of caring appear consistent with Henry's findings. Likewise, nurses, using the Care Q instrument, in studies by Larson (1987) and Mayer (1987) valued items from "comforts" and "trusting relationship" subscales. This indicates that caring involves the use of people skills and knowledge of behavior.

In contrast, cancer patients studied by Larson (1984, 1987) and Mayer (1987), and rehabilitation patients and nurses in the study by Keane et al. (1987), using the Care Q instrument, indicated that caring was evident by nurse behaviors that focused on tasks, professional competency, and knowledge. Brown's (1981) sample of medical-surgical patients and Cronin and Harrison's (1988) sample of myocardial infarction patients, using a Likert scale, identified competency and close monitoring as indicators of nurse caring behaviors.

Lack of consistent findings among previous studies, lack

of consensus between caregivers and receivers, and the limited amount of study related to caring in the critical care setting are factors that led to the decision to replicate the study by Cronin and Harrison (1988). Increased confidence can be placed in the results of a study if it can be demonstrated that results can be replicated (Polit & Hungler, 1987, p. 196).

Theories of caring. The literature related to theories of caring will now be examined. The work of Mayeroff, a philosopher, has influenced the thinking of nurses in their study of the concept of care. Mayeroff (1971) devoted a complete book to a philosophical, existential description of caring. He stated that it is through caring for others, "a man lives the meaning of his own life" (Mayeroff, p. 2). While the process of helping another grow and actualize is the focus and general definition of caring for Mayeroff, the actualization of the carer also occurs in the process.

The essential ingredients of care, according to Mayeroff (1971), are knowing, alternating rhythms, patience, honesty, trust, humility, hope, and courage. If these ingredients are not present, caring will not occur. However, when care is provided, a sense of harmony with one's existence results. Mayeroff stated that a life ordered through caring is characterized by basic certainty, a sense that the process of life is enough, intelligibility and unfathomability, autonomy, faith, and gratitude. Mayeroff's work is comprehensive and meaningful. However, Brown (1981)

identified Mayeroff's failure to relate his ideas to other philosophical works as a serious limitation. The obvious influence of other existential thinkers upon his own philosophy is not directly acknowledged by Mayeroff in his book.

Leininger, a nurse anthropologist, has been a leader and a facilitator in the study of care within nursing. In the mid-1970's she launched the National Research Caring conferences where theoretic, philosophic, and research works by nurses have been presented to explicate the phenomenon of care (Leininger, 1984b). Caring, for Leininger (1981), is the central and unifying domain for the body of knowledge and the practice of nursing. Care is "one of the most critical and essential ingredients for health, human development, human relatedness, well-being, and survival" (Leininger, 1980, p. 136). Leininger defined professional nursing care as cognitively learned humanistic and scientific modes of helping an individual, family, or community to receive personalized services through specific culturally defined caring processes to improve or maintain a favorably healthy condition for life or death (Leininger, 1984b).

Leininger (1981) focused on the care phenomenon from a transcultural, world-view perspective. From her studies of various cultures she developed a conceptual framework to show how knowledge of caring is obtained and validated, and a classification of ethnocaring constructs for her

ethnoscience research. Included among these constructs are comfort, compassion, empathy, nurturance, surveillance, touching, and health instruction.

A theoretic position held by Leininger (1984a) based on observation and logic, is that there can be no curing without caring, but there may be caring without curing. This makes caring indispensable in health care services, yet physician curing modes receive more attention and are rewarded more than nurse care modes. Leininger (1980) urges and challenges nursing as a profession to value caring, study it, and promote it in order to make a difference in health care services.

In spite of Leininger's leadership, care remains a covert component of professional health services. It is like a diamond in the rough. Several care facilitators and resistance factors in the culture of nursing have been identified by Leininger (1986). Leininger (1984a) takes issue with the 1981 American Nurses' Association Social Policy Statement that defines nursing as "the diagnosis and treatment of human responses to actual or potential health problems" (cited by Leininger, 1984a). The selection of "human response" to characterize nursing and its philosophic dimensions plus the medical focus of illustrations cited in the social policy deter nursing from dealing with care as the essence of nursing.

From a humanistic, existential, philosophic perspective, Bevis (1981) developed a conceptual framework delineating

phases of caring. Care, according to Bevis, is a staged developmental process that leads to action and has as its purpose growth and mutual self-satisfaction. Bevis proposed a four-staged interpersonal process to facilitate the expression of caring. Although Bevis studied care as the central focus of nursing and life, it is difficult to see how the four stages fit into the nurse-patient relationship with its patient centered focus and its time limited interaction.

Using philosophical analysis, Gaut (1983) examined the concept of care and developed a theoretical description of caring. Gaut was concerned with the lack of clarity and preciseness of the term caring and the need for nursing to develop its own body of knowledge. After reviewing both common word usage and scholarly literature, Gaut found that caring encompassed three senses: (a) attention to or concern for, (b) responsibility for or providing for, and (c) regard, fondness, and attachment. Both attitude and action are included in these three senses.

Gaut (1983) clarified relationships between constituents of caring and based an action description of caring on the following necessary and sufficient conditions: (a) the carer must have knowledge about the other to identify need for care and must know certain things could be done to improve the situation, (b) the carer must choose and implement action based on knowledge and intend the action as means for bringing about positive change in the other, and

(c) the positive change must be judged solely on the basis of "welfare of other" criterion.

Gaut (1986) developed a nurse competency model based on her action description of caring. Gaut sees caring as a series of actions beginning with goal setting and ending with implementation. To consider a nurse competent, skills must be used consistently over time. The model goes beyond observable skills to include intention, choices, and judgements that underlie performance. Regard and respect for persons serve as the underlying principle for all caring, according to Gaut.

In summary, the existential, philosophic perspective seems to be the foundation for understanding the care phenomenon. Nursing and nonnursing scholars have studied care. Mayeroff (1971) identified several essential ingredients of care. Leininger (1981) focused on care from a cultural perspective and developed a classification of ethnocaring constructs. According to Bevis (1981), care is a staged developmental process. Gaut (1986) developed a nurse competency model based on her action description of caring. A commonality found among the scholars is the understanding that care occurs within the context of an interpersonal relationship, and attitudes and actions lead to a positive outcome of growth for both the one being cared for and the caregiver.

Theoretical Framework

The theoretical framework of this study is based on the work of Watson (1979, 1985), a nurse scholar who studied care as expressed in nursing. Watson views human care and caring as the moral ideal of nursing. Nursing, according to Watson (1979), is a therapeutic interpersonal process with a basic core made up of the philosophy and science of caring. Care consists of "transpersonal human to human attempts to protect, enhance, and preserve humanity" (Watson, 1985, p. 54). Watson (1985) further elaborated on the art of transpersonal caring with its goal of movement toward a higher sense of self and greater sense of harmony with mind, body, and soul.

Because of the human nature of nursing, Watson (1985) emphasizes the moral, spiritual, metaphysical dimensions of nursing. Although the need for the nurse to be a scientist, scholar, and clinician is recognized, Watson places nursing within a metaphysical context with emphasis on the nurse as a moral and humanitarian agent. The challenge is to move beyond objectivism and the traditional science approach and to regard nursing as a human science and an art. "Metaphysical beliefs of nursing theory provide the passion for nursing and keep it alive, changing, and open to new possibilities" (Watson, p. 54).

Basic assumptions of Watson (1979) include (a) effective caring results in health and growth, (b) caring accepts persons as they are and as what they may become, (c) caring

allows persons to choose the best action for themselves at a given point in time, and (d) the practice of caring is central to nursing. Based on these assumptions, Watson (pp. 9-10) identifies ten "carative factors" which serve as a framework to understanding and guiding the caring process:

1. Humanistic-altruistic value system: the capacity to view others through their own perceptual systems rather than one's own and the commitment to and satisfaction of receiving through giving.

2. Faith-hope: the respect and encouragement of each patient's individual beliefs and the instillation of belief in one's self and one's caregivers.

3. Sensitivity to self and others: the use of sensitivity and feelings to promote self-development and self-actualization.

4. Helping-trusting relationship: the development of a therapeutic nurse-patient relationship through the attitudinal processes of congruence, empathy, and nonpossessive warmth.

5. Expression of positive and negative feelings: the facilitation and the acceptance of the ventilation of feelings to improve self-awareness and internal control over thoughts and behaviors.

6. Scientific problem-solving method: the use of the nursing process and scientific research to guide nursing practice.

7. Transpersonal teaching-learning: the imparting of information as well as consideration for the nature of learning and the interpersonal processes that facilitate learning.

8. Supportive, protective, and/or corrective mental, physical, social, and spiritual environment: the manipulation of both internal and external environmental factors to promote health and well-being.

9. Human needs assistance: interventions that assist patients in meeting human needs and thereby promote growth and development.

10. Existential, phenomenological, and spiritual forces: a philosophic approach that acknowledges the separateness and identity of each person and helps bring personal meaning to the human predicament.

These ten "carative factors," interacting toward a holistic approach, combine the humanistic existential philosophy with a scientific knowledge base to guide nursing practice. Some of the factors describe qualities or attitudes of the nurse and others describe what the nurse does to provide care. Watson's (1979) ten "carative factors" served as a framework to guide this study of nurse caring behaviors. The Caring Behavior Assessment (CBA), developed by Cronin and Harrison (1988), is based on Watson's "carative factors" and was used to collect data in this study.

Research Questions

1. Which nurse caring behaviors in the critical care unit are perceived as most important and least important by patients with acute myocardial infarction?
2. Do acute myocardial infarction patients' perceptions of nurse caring behaviors differ according to number of admissions to a critical care unit?

Definitions

Caring is the process by which the nurse becomes responsive to another person as a unique individual, perceives another's feelings, and sets that person apart from the ordinary.

Nurse caring behaviors are those things that a nurse says or does that communicate caring to the patient. This will be determined through patient responses on the Caring Behaviors Assessment (Cronin & Harrison, 1988). In this study the nurse is a person who has been licensed to practice nursing as a practical or registered nurse.

Assumptions

1. Caring can be described in terms of behavior.
2. Patients can identify nurse caring behaviors that are most important and least important to them.
3. Effective caring behaviors by the nurse promotes patients' health and growth.

CHAPTER THREE

METHODOLOGY

Research Design

This descriptive study identified nursing behaviors in the critical care unit (CCU) perceived as indicators of caring by patients with acute myocardial infarction (MI). Descriptive research has as its main objective the accurate portrayal of the characteristics of persons, situations, or groups, and the frequency with which certain phenomena occur (Polit & Hungler, 1987, p. 528). Data relating to patients' perceptions of nurse caring behaviors were obtained by means of an open-ended question and an assessment scale in questionnaire form. Subjects responded to the question, "Thinking back to your recent experience in the critical care unit, what did a nurse say or do that made you feel the nurse was caring?" The Caring Behaviors Assessment was then completed as the patient reflected back and indicated caring behaviors of the nurse that were most important and least important in the CCU.

Cronin and Harrison (1988) found that patients who had been in the critical care unit previously gave a significantly higher rating to the subscale of "expression of positive, negative feelings." Therefore, two comparison groups were formed from the 44 subjects to address the

second research question regarding difference in patients' perceptions according to number of admissions to a CCU. Information regarding number of admissions to a CCU, obtained with the demographic data, was used by the researcher to form the two groups.

Sample and Setting

The study was conducted at two acute care hospitals in western Michigan. Each hospital has a CCU where patients with MI are cared for by nurses. Actual data collection took place in nursing units that received patients with MI by transfer from the CCU. A sample of 44 patients that met the following criteria was used: (1) adult patient with current diagnosis of MI, recently transferred from a CCU (within 48 hours), and in stable condition as determined by a charge nurse; (2) CCU stay during current hospitalization of at least 24 consecutive hours but not more than seven days; (3) ability to speak and read English; (4) physical and mental ability to participate in the study as determined by a charge nurse; (5) treatment for MI by non-surgical intervention during current hospitalization; and (6) willingness to participate in the study. A minimum of 24 hours in the CCU was designated to give the patient time to become aware of nurse behaviors. However, a stay of more than seven days could indicate secondary complications which might alter patient perceptions. Surgical intervention with coronary artery bypass grafting might also influence patient

perceptions of nurse caring behaviors, therefore this group of patients was not be included in the study.

The sample of 44 patients was made up of 35 males and 9 females whose ages ranged from 45-84 years of age. Distribution of the subjects was fairly equal between the two hospitals (n = 21, n = 23). For 22 subjects the current hospitalization was their first admission to the CCU, and the remaining 22 had one or more previous admissions to a CCU. Polit and Hungler (1987, p. 220) recommend that a sample size of preferably 20 to 30 be selected for each subdivision of data.

Instruments

This study employed two data collection tools, the Caring Behaviors Assessment and a patient demographic data form, parts one and two. The Caring Behaviors Assessment was used by patients with MI to identify most important and least important nurse caring behaviors in the CCU. Patients' demographic data were collected to determine sample characteristics. Subjects' verbal responses to the open-ended question were recorded by the researcher in a notebook.

Caring Behaviors Assessment (CBA). The CBA was developed by Cronin and Harrison (1988) to assess the relative contribution of identified nursing behaviors to the patient's sense of feeling cared for and about (Appendix A). The original CBA listed 61 nursing behaviors ordered in seven subscales that were determined to be congruent with

Watson's (1979) ten "carative factors." The first three of Watson's factors are grouped together into one subscale, "humanism, faith-hope, and sensitivity." This is conceptually congruent with Watson's model. The sixth carative factor, use of a creative problem-solving caring process, was assumed by the authors to be inherent to all aspects of nursing making it imperceptible to patients. Therefore, this factor was omitted as a subscale. Based on the results of Cronin & Harrison's (1988) study, two items were added to the "supportive, protective, corrective environment" subscale, bringing the present CBA to 63 items ordered in seven subscales (see Table 1). Each of the seven subscales range from 3-16 items. The CBA is a 5-point Likert scale with 1 indicating little importance and 5 indicating much importance. The possible total score of the CBA ranges from 63 to 315.

Cronin and Harrison (1988) and the present researcher determined the reliability of the CBA subscales using Cronbach's alpha (see Table 1). The reliability coefficients ranged from .66 to .90 in Cronin and Harrison's study and from .73 to .89 in this present study. The reliability of an instrument is the degree of consistency with which it measures the attribute it is supposed to be measuring (Polit & Hungler, 1987). The longer subscales were found be more reliable than the shorter subscales.

Cronin and Harrison (1988) reported that face or content validity of the CBA was established by a panel of four

Table 1

Caring Behaviors Assessment Subscale Items and Reliability

Subscale (Items)	Cronbach alpha	
	Cronin & Harrison	Present Study
Humanism/faith-hope/ sensitivity (1-16)	.84	.89
Helping/trust (17-27)	.76	.85
Expression of positive/ negative feelings (28-31)	.67	.76
Teaching/learning (32-39)	.90	.83
Supportive/protective/ corrective environment (40-51)	.79	.85
Human needs assistance (52-60)	.89	.84
Existential/phenomenological/ spiritual forces (61-63)	.66	.73

content specialists familiar with Watson's (1979) conceptual model. Readability of the CBA was determined to be at the sixth grade level. Construct validity of the CBA has not been studied. As items within each subscale are analyzed for conceptual fit, it can be seen that this may be a limitation of the CBA. Permission to use the CBA in this study was obtained by correspondence from Cronin and Harrison.

Patient Demographic Data Form. The demographic data form-part 1 (Appendix B) was given to the patient to complete along with the CBA. Information relating to the subject's education, perception of seriousness of condition while in the CCU, availability of support system, and number of previous admissions to a CCU were recorded on this form by the patient. Part 2 of the demographic data form was completed by the researcher by chart review following the subject's consent to participate in the study. Information regarding subjects's age, gender, time spent in the CCU as a patient, and treatment received for the MI while in the CCU was recorded.

Previous studies have failed to consistently identify individual characteristics that have made a difference in perceptions of nurse caring behaviors. However, the researcher's clinical experience with patients with MI has shown a variety of responses to the illness, the hospitalization, and the nurse patient-relationship. Availability of social support, perception of seriousness of the illness, and invasiveness of the treatment received seem likely to influence patients' perceptions of nurse caring behaviors. Information relating to number of CCU admissions was used to form the two comparison groups needed to address the second research question. The remaining information was used to describe the sample and to compare the two comparison groups relating to confounding variables.

Procedure

Approval from appropriate human subjects review committees at the university and the hospitals was obtained prior to beginning data collection. Following approval, a small pilot study involving three patients was done. After noting the subjects' desire to talk about their experience in the CCU, the open-ended question was added to the study. The initial sample criterion of a minimum CCU stay of 48 hours was revised to 24 hours. The pilot study identified the practice of shortened CCU stay for some MI patients, and Cronin and Harrison (1988) had used the criterion of a minimum CCU stay of 24 hours. A verbal script was also developed following the pilot study to ensure consistency of instruction from patient to patient.

Before beginning data collection, the researcher met with the nurse managers of the units involved in the study to explain the study and to gain support for the study. A letter explaining the study was supplied to the nurse managers to copy and give to each of their nursing staff members. Every other day the researcher contacted the charge nurse of the appropriate nursing units to determine availability and potential eligibility of subjects for the study. Cardiac rehabilitation nurses were also helpful in identifying potential subjects. The researcher then reviewed any potential subject's chart to validate eligibility. The potential subject was approached by the researcher in the hospital room within 48 hours after

transfer from the CCU. The purpose and procedure of the study was explained using the verbal script (Appendix C). The voluntary and confidential nature of the study was emphasized. Patients were informed that they were free to withdraw from the study at any time with no effect on the care given them by the nurses. The consent form (Appendix D) was read by the subject and explained as needed by the researcher. It was then signed by the patient if there was agreement to participate in the study.

After agreeing to participate, the patient was asked the open-ended question, "Thinking back to your recent experience in the critical care unit, what did a nurse say or do that made you feel the nurse was caring?" At the patient's bedside the researcher recorded the verbal response to the question in a notebook. Following this the CBA and the demographic data form-part 1 were given to the patient and directions regarding them were reviewed by the researcher. Particular attention was directed at the appropriate use of the Likert scale. Before leaving the patient, the researcher made arrangements for a suitable time for the CBA and the demographic data form to be picked up.

There were no expected risks for patients involved in this study. By obtaining informed consent from each patient and emphasizing voluntary participation in the study, the researcher protected the patient's rights. Only those patients who were in stable condition and physically and

mentally able to participate in the study as determined by a charge nurse were approached by the researcher. In sensitivity to the patient's well-being, the CBA was done at the patient's convenience at the bedside and after transfer from the CCU. Each patient's CBA and demographic data forms were numbered chronologically as data were collected with no names used to identify the instruments. Patients' name are not associated with any findings of the study.

CHAPTER FOUR

RESULTS

Data were collected during a three month period from September 10, 1990 to December 10, 1990. During this period 48 patients met the criteria, were approached by the researcher, and agreed to participate in the study. Four of these patients were not included in the study because of inability to complete a major portion of the CBA. All four patients had a psychological stressor to deal with that hindered their ability to complete the study. Forty-four patients gave consent to participate and completed the study. All data analysis was computed using the Statistical Package for the Social Sciences (SPSS/PC+) software.

Characteristics of the Subjects

Seventy-nine percent ($n = 35$) of the sample was male while 21 percent ($n = 9$) was female. Their ages ranged from 45-84 years with a mean age of 61.6 years. The mean years of education completed by the sample was 12 years. Data regarding perceived seriousness of condition while in the CCU, availability of support system, time spent in the CCU, and treatment received for MI are listed in Table 2. Seventy-three percent ($n = 32$) of the sample perceived their condition while in the CCU to be serious. Ninety-one percent ($n = 40$) reported having available social support.

Table 2

Comparison of Two Groups in Regards to Sample Characteristics

	Group		
	First admission to CCU (n = 22)	Previous admissions to CCU (n = 22)	
Characteristic	n	n	χ^2 ^b
Gender			
Male	15	20	0.00
Female	7	2	
Agency			
Number 1	10	11	0.00
Number 2	12	11	
Perceived condition while in CCU			
Good	8	4	0.00
Serious	14	18	
Available support system ^a			
Yes	21	19	0.00
No	1	1	
Treatment received			
Medications	20	22	0.00
Coronary angioplasty plus medications	2	0	
Time spent in the CCU			
24-48 hours	2	3	0.00
48 hours to 7 days	20	19	

Note. χ^2 with Yates correction was used for data analysis.

^aTwo subjects did not respond. ^b $p > .05$, $df = 1$.

Comparison of the Two Groups

Half of the subjects ($n = 22$) in the sample indicated they had no previous admissions to a CCU. Half ($n = 22$) had been a patient in a CCU one or more times prior to this current admission. Sixty-four percent ($n = 14$) of the latter group had one or two previous admits to a CCU while 36 percent ($n = 8$) had three to six previous CCU admissions.

Chi-square analysis of distribution between groups was computed to compare the two groups. The two groups were not significantly different from each other with respect to gender, agency, perceived seriousness of condition, available support system, treatment received, and time spent in the CCU ($p > .05$) (see Table 2). T-tests were computed to compare differences in mean ages and educational levels of the two groups. The results showed that the two groups did not differ significantly from each other in regard to these characteristics ($p > .05$) (see Table 3).

Research Question One

Which nurse caring behaviors in the critical care unit are perceived as most important and least important by patients with myocardial infarction? Mean scores for each item on the CBA were computed along with mean scores for each subscale of the CBA. Strictly speaking, data from items on a Likert scale are at ordinal level, and the median is the appropriate descriptive statistic to summarize these findings. However, in order to compare findings from this study to the study of Cronin and Harrison (1988), means were

computed for the items on the CBA.

The 12 most important nurse caring behaviors identified by use of the CBA are presented in Table 4. The two most important nurse caring behaviors identified by the subjects were (a) know what they are doing and (b) make me feel someone is there if I need them. The 12 nurse caring behaviors identified as least important are presented in Table 5. The two caring behaviors identified by the subjects as least important were (a) visit me when I move to another hospital unit and (b) talk to me about my life outside the hospital. Ranking the seven subscales of the CBA by subscale means, "human needs assistance" ranked

Table 3

Age and Education Comparison of Two Groups

Characteristic	Group				
	First admission to CCU (n = 22)		Previous admissions to CCU (n = 22)		t ^a
	M	SD	M	SD	
Age (years)	59.09	9.26	64.09	10.64	-1.66
Education (years)	12.18	2.11	11.90	2.68	.38

^ap > .05, df = 42.

first. This was followed by the subscale of "humanism, faith-hope, and sensitivity." "Expression of positive, negative feelings" subscale ranked last (see Table 6).

Table 4

Twelve Most Important Caring Behaviors Assessment Items

Caring Behavior Item	Mean	SD
Know what they are doing	4.84	.43
Make me feel someone is there if I need them	4.75	.53
Know how to give shots, IVs, etc.	4.66	.68
Know how to handle equipment	4.64	.61
Are kind and considerate	4.57	.63
Help me with my care until I'm able to do for myself	4.57	.73
Treat me as an individual	4.55	.70
Know when it's necessary to call the doctor	4.52	.88
Answer my questions clearly	4.50	.82
Maintain a calm manner	4.50	.70
Give my treatments and medications on time	4.50	.63
Treat me with respect	4.50	.73

Table 5

Twelve Least Important Caring Behaviors Assessment Items

Caring Behavior Item	Mean	SD
Visit me if I move to another hospital unit	2.34	1.29
Talk to me about my life outside the hospital	3.14	1.23
Ask me what I liked to be called	3.18	1.33
Ask me how I like things done	3.25	1.35
Touch me when I need it for comfort	3.39	1.22
Help me to plan for my discharge from the hospital	3.41	1.32
Consider my spiritual needs	3.45	1.13
Don't become upset when I'm angry	3.50	1.11
Help me understand my feelings	3.52	1.02
Help me see that my past experiences are important	3.57	1.23
Praise my efforts	3.66	1.08
Help me plan ways to meet goals for my health	3.68	1.38

Table 6

Ranking of Caring Behaviors Assessment Subscales by Mean Value

Rank	Subscale	Mean
1	Human needs assistance	4.43
2	Humanism/faith-hope/sensitivity	4.18
3	Supportive/protective/corrective environment	4.11
4	Teaching/learning	3.95
5	Existential/phenomenological/spiritual forces	3.87
6	Helping/trust	3.83
7	Expression of positive/negative feelings	3.71

Research Question Two

Do acute myocardial infarction patients' perceptions of nurse caring behaviors differ according to number of critical care unit admissions? T-tests were computed to compare differences in CBA subscale means of the group of patients without previous admissions to a CCU and the group with one or more previous admissions to a CCU (see Table 7). For the subscale of "human needs assistance" the test for homogeneity of variance of the two groups was significant ($p = .00$). Therefore, the separate variance estimate was used. The pooled variance estimate was used for the other

subscales since the requirement of similar variances between the two groups was met. The results showed a significant

Table 7

Comparison of Subscale Means for Two Groups

Subscale	Group				
	First admission to CCU (n = 22)		Previous admissions to CCU (n = 22)		t
	M	SD	M	SD	
Humanism/ faith-hope/ sensitivity	64.09	8.61	69.59	7.77	-2.22*
Helping/trust	40.23	6.94	43.95	7.15	-1.76
Expression of positive/negative feelings	13.59	3.02	16.09	3.09	-2.72*
Teaching/learning	30.36	6.79	32.77	5.63	-1.28
Supportive/ protective/ corrective environment	47.91	7.58	50.68	6.34	-1.32
Human needs assistance	38.32	6.25	41.36	2.75	-2.09*
Existential/ phenomenological/ spiritual forces	10.86	2.75	12.36	2.24	-1.99

*p < .05, df = 42.

difference between the groups for the subscales of "humanism, faith-hope, sensitivity," "expression of positive, negative feelings," and "human needs assistance" ($p < .05$). Patients who had one or more previous admissions to a CCU identified items from these three subscales to be more important than did the group of patients with no previous CCU admissions.

Since data were collected from patients at two hospitals, two-way analysis of variance was performed to determine interaction effect of agency and group variables. Results of this analysis show no significant interaction ($p > .05$) (see Table 8). Agency factor did not make a difference in the two groups' perceptions of nurse caring behaviors. Main effect results validate t-test findings and show a significant difference between groups' perceptions regarding nurse caring behaviors from the subscales of "humanism, faith-hope, sensitivity," "expression of positive, negative feelings," and "human needs assistance." Main effect for agency also shows that patients from one of the agencies identified behaviors from the subscale of "expression of positive, negative feelings" to be significantly more important ($p < .01$) (see Table 8).

Other Findings

Forty-three of the 44 patients in the sample responded to the open-ended question of "Thinking back to your recent experience in the critical care unit, what did a nurse say or do that showed the nurse was caring?" The researcher

Table 8

Interaction Between Group and Agency Variables

Subscale	Group (G)	Agency (A)	G x A	Within
Humanism/faith-hope/ sensitivity				
MS	327.27	8.40	10.32	70.21
F	4.66*	.12	.15	
Helping/trust				
MS	154.47	3.04	.06	51.99
F	2.97	.06	.00	
Expression of positive/ negative feelings				
MS	74.64	61.28	.00	8.25
F	9.05**	7.42**	.00	
Teaching/learning				
MS	63.08	.75	3.42	40.72
F	1.55	.02	.08	
Supportive/protective/ corrective environment				
MS	89.94	42.56	11.70	49.91
F	1.80	.85	.23	
Human needs assistance				
MS	104.94	11.41	15.97	23.81
F	4.41*	.48	.67	
Existential/ phenomenological/ spiritual forces				
MS	25.34	1.96	.04	6.54
F	3.87	.30	.01	

Note. df = 1 for group, agency, and G x A; df = 40 for within.

*p < .05. **p < .01.

chose not to address the question to one of the subjects because of the patient's obvious fatigue at the time. All 43 of the patients who responded to the question were able to identify one or more behaviors of the nurse in the CCU that they perceived to be caring behaviors. Initially it was difficult for some patients to be specific in their reply and a typical response was, "They (nurses) were all wonderful." Several patients were eager to talk about their experience in the CCU and felt the need to go into detail about their admission to the hospital and the course of their illness. A few responses included a perceived negative experience in the CCU to which the researcher responded with listening and understanding. None of these patients desired any follow-up action in response by the researcher.

Eight behaviors were identified most frequently as caring behaviors in response to the open-ended question. They were (a) offer things to make me more comfortable, (b) are cheerful and friendly, (c) know what they are doing, (d) frequently check and monitor me, (e) come promptly when I call, (f) give pain medication when I need it, (g) give reassurance that I will make it, and (h) are there when I need them. All of these behaviors correspond to items in the CBA, and each behavior was mentioned by five or more patients.

Three of the most frequently identified behaviors in response to the open-ended question fit into the CBA

subscale of "supportive, protective, corrective environment"; three behaviors fit into the CBA subscale of "humanism, faith-hope, sensitivity"; one behavior fits into the subscale of "helping-trusting relationship"; and one fits into the CBA subscale of "human needs assistance." There were no behaviors identified by patients as caring in response to the open-ended question that fit into the CBA subscales of "expression of positive, negative feelings" or "existential, phenomenological, spiritual forces."

More than one subject identified the behavior of the nurse sharing himself/herself with the patient as a caring behavior. One commented on how this relieved fear. Other patients identified honesty on the part of the nurse as a indicator of caring. These behaviors do not have a close correlate as an item on the CBA.

CHAPTER FIVE

DISCUSSION/LIMITATIONS/IMPLICATIONS

Discussion

The discussion focuses on nurse caring behaviors identified as most important and least important by patients with MI. Findings related to the CBA subscales and the behaviors that make up these subscales are examined. Responses to the open-ended question about nurse caring behaviors in the CCU are also included in the discussion.

Since Cronin and Harrison (1988) reported the nine most important and the nine least important caring behaviors, discussion will focus on these behaviors to facilitate comparison of the two studies. Comparison is also made with other previous studies of nurse caring behaviors.

Research question one. Which nurse caring behaviors in the critical care unit are perceived as most important and least important by patients with acute myocardial infarction? In this study the CBA subscale of "human needs assistance" ranks the highest. Four of the nine caring behaviors identified by subjects as most important are from the "human needs assistance" subscale. The four behaviors involve competency in the use of technical knowledge, skill, and judgment along with providing assistance to the patient with ADLs. Most of the sample (73%) perceived their

condition while in the CCU to be serious. It seems they valued competent care in meeting their human needs at this stressful time. None of the items from the "human needs assistance" subscale are among the nine nurse caring behaviors identified by subjects as least important.

This is consistent with the findings of Cronin and Harrison (1988). In their study "human needs assistance" also ranked the highest of the CBA subscales (see Table 9). Findings related to most important and least important

Table 9

Caring Behaviors Assessment Subscales Ranking Compared with Findings of Cronin and Harrison (1988)

Subscale	Rank in present study	Rank in Cronin and Harrison's study
Human needs assistance	1	1
Humanism/faith-hope/sensitivity	2	3
Supportive/protective/corrective environment	3	5
Teaching/learning	4	2
Existential/phenomenological/spiritual forces	5	4
Helping/trust	6	6
Expression of positive/negative feelings	7	7

behaviors from this subscale of "human needs assistance" are comparable in both studies. Seven out of the nine most important caring behaviors and six out of the nine least important caring behaviors are identical in the two studies (see Tables 10 & 11).

The patients in the studies of Brown (1981), Larson (1984), Mayer (1987), and Keane et al. (1987) also identified nursing behaviors that focused on tasks of providing care in a professional, competent manner as very important indicators of caring. On the other hand, in response to Henry's open-ended question, the largest number of patient responses fell in the category of "how the nurse does." This underscored the importance to the patient to be regarded respectfully as a unique individual. Rieman (1986) found by analysis of patients' descriptions of nurse-client relationships that the essential structure of a caring relationship included the concept of the nurse's existential presence in responding to the client's stated and unstated needs. This involved the voluntary giving of oneself and listening to the client. Interestingly, in response to the open-ended question posed to patients in this study, only one out of the eight most frequent responses fits into the subscale of "human needs assistance." That response is "frequently checks and monitors me."

In priority ranking of the CBA subscales, the subscale of "humanism, faith-hope, and sensitivity" ranks second. Four items from this subscale are among the nine most important

Table 10

Nine Most Important Caring Behaviors Assessment Items
Compared with Findings of Cronin and Harrison (1988)

Rank	Item in present study (Subscale)	Item in Cronin and Harrison's study (Subscale)
1	Know what they are doing (Humanism, faith-hope, sensitivity)	Know what they are doing (Humanism, faith-hope, sensitivity)
2	Make me feel someone is there if I need them (Humanism, faith-hope, sensitivity)	Make me feel someone is there if I need them (Humanism, faith-hope, sensitivity)
3	Know how to give shots, IVs, etc. (Human needs assistance)	Know how to give shots, IVs, etc. (Human needs assistance)
4	Know how to handle equipment (Human needs assistance)	Know how to handle equipment (Human needs assistance)
5	Are kind and considerate (Humanism, faith-hope, sensitivity)	Know when it's necessary to call the doctor (Human needs assistance)
6	Help me with my care until I am able to do for myself (Human needs assistance)	Do what they say they will do (Helping, trust)
7	Treat me as an individual (Humanism, faith-hope, sensitivity)	Answer my questions clearly (Teaching, learning)
8	Know when it's necessary to call the doctor (Human needs assistance)	Are kind and considerate (Humanism, faith-hope, sensitivity)
9	Answer my questions clearly (Teaching, learning)	Teach me about my illness (Teaching, learning)

Table 11

Nine Least Important Caring Behaviors Assessment Items
Compared with Findings of Cronin and Harrison (1988)

Rank	Item in present study (Subscale)	Item in Cronin and Harrison's study (Subscale)
63	Visit me if I move to another hospital unit (Helping, trust)	Visit me if I move to another hospital unit (Helping, trust)
62	Talk to me about my life outside the hospital (Helping, trust)	Ask me what I like to be called (Helping, trust)
61	Ask me what I like to be called (Helping, trust)	Ask me how I like things done (Humanism, faith-hope, sensitivity)
60	Ask me how I like things done (Humanism, faith-hope, sensitivity)	Don't become upset when I'm angry (Expression of feelings)
59	Touch me when I need it for comfort (Helping, trust)	Try to see things from my point of view (Humanism, faith-hope, sensitivity)
58	Help me to plan for my discharge from the hospital (Teaching, learning)	Talk to me about my life outside the hospital (Helping, trust)
57	Consider my spiritual needs (Supportive, protective environment)	Touch me when I need it for comfort (Helping, trust)
56	Don't become upset when I'm angry (Expression of feelings)	Understand when I need to be alone (Supportive, protective, environment)
55	Help me understand my feelings (Expression of feelings)	Help me see that my past experiences are important (Existential) spiritual forces)

nurse caring behaviors identified by the subjects on the CBA. This suggests that along with clinical competency and close monitoring, patients value behaviors of the nurse that reflect positive attitudes of the nurse towards the patient. These behaviors show kindness and consideration, provide encouragement and reassurance, and instill confidence. Responses to the open-ended question seem to support this finding. Three of the eight most frequently identified behaviors in response to the open-ended question fit into the subscale of "humanism, faith-hope, and sensitivity." These are the responses of "know what they are doing," "give reassurance," and "are there when I need them."

The subscale, "humanism, faith-hope, and sensitivity," ranked third in Cronin and Harrison's study. Three out of the nine most important behaviors identified by the CBA were from this subscale (see Tables 9 & 10). Henry (1975) and Brown (1981) concluded from their studies that nurse behaviors that indicate care include both nursing skills and person skills, and indicators of care are a combination of what the nurse does and what the nurse is like as a person.

"Supportive, protective, corrective environment" subscale ranks third in this study. Nurse behaviors that manipulate both internal and external environments to promote health and well-being make up this subscale. None of the behaviors from this subscale are among the nine most important nurse caring behaviors that patients identified by use of the CBA in this study or in the study of Cronin and Harrison

(see Table 10). However, three of the eight most frequent responses to the open-ended question fit with this subscale. Those responses are "are cheerful," "offer things to make me more comfortable," and "give pain medication when I need it." The verbal responses of the subjects to the open-ended question suggest that behaviors from this subscale are important.

Rieman (1986) found that the essential structure of a caring nurse-client relationship included the concept of presence of the nurse in responding to patients' stated and unstated needs. Voluntary giving on the part of the nurse increased feelings of comfort and security. Items that make up the subscale of "supportive, protective, corrective environment" seem to correspond with Rieman's voluntary giving.

The subscale of "teaching, learning" ranks fourth in this study. Behaviors from this subscale focus on teaching the patient about health and illness, goal setting, and discharge planning. One item from this subscale is among the nine most important nurse caring behaviors identified by patients by use of the CBA. That item is "answer my questions clearly." None of the eight behaviors identified most frequently as caring in response to the open-ended question are related to teaching-learning. This is in contrast to the study by Cronin and Harrison (1988) where priority ranking of the CBA subscales showed "teaching, learning" to be ranked second (see Table 9). Perhaps the

patients from this study did not identify as teaching the informal instructions that are so much a part of nursing. Perhaps the cardiac rehabilitation nurses who begin teaching early after MI were not identified by patients as nurses.

Ranking fifth in this study is the subscale of "existential, phenomenological, spiritual forces." None of the behaviors from this subscale are among the nine most important nurse caring behaviors identified by CBA. These findings are consistent with Cronin and Harrison (1988) (see Table 9 & 10). From this subscale Cronin and Harrison reported the behavior of "help me see that my past experiences are important" to rank ninth least important (see Table 11). None of the items from this subscale are among the nine least important behaviors identified in this study. However, the same behavior, "help me see that my past experiences are important" ranked tenth least important. This subscale includes nurse behaviors that acknowledge the separateness and identity of each person and help bring meaning to the patient's experience. Of the three items making up the subscale, "seem to know how I feel" was identified as more important on the CBA. None of the most frequent responses to the open-ended question correspond to the behaviors from this subscale.

Ranking sixth is the subscale of "helping-trust." This subscale includes behaviors of the nurse that promote a therapeutic nurse-patient relationship. None of the items from this subscale is among the nine most important nurse

caring behaviors identified by patients using the CBA. Four out of the nine least important behaviors are from this subscale of "helping-trust." This finding is consistent with Cronin and Harrison's (1988) study (see Tables 10 & 11). One of the most frequent responses to the open-ended question was "come promptly when I call." This behavior fits with the "helping-trust" subscale.

Previous studies have shown lack of congruency between patients and nurses regarding the importance of behaviors that facilitate the nurse patient relationship. Larson (1987) found that nurses valued items from a "trusting relationship" subscale significantly more than did patients. Mayer (1987) obtained similar findings. Most of the patients in the sample (91%) indicated the availability of a support system. This, along with the relatively short time spent in the CCU, may decrease the patient's perceived value of a trusting-helping relationship with the nurse. Patients involved in a long term relationship with the nurse may perceive behaviors from the "helping-trust" subscale to be more important.

Ranking last of the CBA subscales is the subscale of "expression of positive-negative feelings." Behaviors from this subscale facilitate and show acceptance of patient's verbalization of feelings. There are no items from this subscale among the nine most important nurse caring behaviors identified by subjects using the CBA. None of the behaviors that were identified most frequently in response

to the open-ended question fit with this subscale. Cronin and Harrison (1988) also ranked this subscale as last (see Table 9). Availability of a support system may be a factor here. Also, the need to express feelings may come later when the crisis has passed, acknowledgement occurs, and ramifications of the illness are realized.

In summary, the subscales of the CBA reflect Watson's (1979) beliefs about nursing. According to Watson, in a holistic approach, the nurse combines humanistic philosophy with scientific knowledge to guide nursing practice. Patients in this study identified nursing behaviors of clinical competency and close monitoring as most indicative of caring. In the stressful environment of the CCU and with a perceived serious illness of MI, patients desire competent care but not by a machine or a robot. Also identified as very important were those behaviors of the nurse that show respect and sensitivity to the patient as a human being. In addition, by verbal response to the open-ended question, subjects identified behaviors of the nurse that manipulate the internal and external environments of the patient to promote comfort such as "offer things to make me more comfortable" and "give pain medication when I need it" to be important indicators of caring. Behaviors of the nurse that promote a therapeutic nurse-patient relationship and encourage the expression of feelings on the part of the patient were identified by CBA to be relatively less important.

Research question two. Do acute myocardial infarction patients' perceptions of nurse caring behaviors differ according to number of admissions to a critical care unit? Based on the findings of their study, Cronin and Harrison (1988) hypothesized that patients with prior experience in a CCU may possess stronger emotions about a repeated admission and may recognize their need to ventilate their feelings. Patients with previous admissions to a CCU identified items from the "expression of positive, negative feelings" subscale to be more important than did patients with no previous admissions to a CCU.

Two groups were formed for this study based on number of previous admissions to a CCU. Comparison of the two groups' perceptions of most important and least important nurse caring behaviors was then done. It was found that patients with one or more previous admissions to a CCU identified items from the subscales of "humanism, faith-hope, sensitivity," "expression of positive, negative feelings," and "human needs assistance" to be significantly more important. The two groups showed no significant difference as to the sample characteristics of sex, agency, perceived condition while in the CCU, available support system, treatment received, time spent in the CCU, age or education. However, chronic illness would more likely characterize the group with repeated admissions to a CCU. The patients in this group may be dealing not only with the emotional stress of a repeated admission but also with the physiological and

psychological stress of dealing with chronic illness. Fatigue, weakness, depression, and anxiety may increase perceived importance of nursing behaviors that provide assistance with human needs, instill hope, and facilitate expression of feelings.

Since the two groups were made up of subjects from two different hospitals with potentially different philosophies of nursing and nursing care delivery systems, two-way analysis of variance was calculated to see if there was a group and agency interaction effect on the subscale means. No significant interaction was found. Agency did not make a difference in the two groups' perceptions of nurse caring behaviors. This finding increases the generalizability of the study. Two-way analysis of variance did show a significant main effect ($p < .01$) of agency on the subscale of "expression of positive, negative feelings." Patients from one of the agencies identified behaviors from this subscale to be more important. Further study is needed to determine implications of this finding.

Limitations

Limitations of this study include factors which are potential threats to the study's internal and external validity. The measuring tool used in this study was the CBA, a Likert scale developed by Cronin and Harrison (1988). Using this previously developed scale facilitated comparisons between the two studies. However, scale scores that represent individuals' attitudes are seldom totally

reliable and measures obtained contain a degree of variability (Polit & Hungler, 1987).

A source of potential measurement error is the response set bias of acquiescence. Some subjects identified a majority of the nurse caring behaviors to be very important by circling the "five" frequently on the CBA. Under the circumstances there may have been a need to be strongly positive in regards to nursing behaviors. There was no counterbalancing of wording for the items on the CBA.

The CBA was completed by the subjects at their bedside at their convenience. This was done for patient comfort. However, situational influences such as visitors, television, meals, and various nursing and medical interventions were a part of the environment. Scores can be affected by the conditions under which they are produced, and this can contribute to errors of measurement. In addition, the various members of the health care team interacting with the patient may have made it difficult for the subject to zero in on nurse caring behaviors exclusively.

Personal factors that commonly coincide with illness such as fatigue, pain, anxiety, worry, and depression can alter subjects' ability to concentrate and do their best on an measuring instrument. This was true of the four patients who initially consented to participate in the study but were unable to complete the questionnaire and thereby were excluded from the study.

None of the subjects complained about the length of the CBA with its 63 items. However, for some of the patients it was the researcher's perception that the length of the CBA was a response burden and contributed to nonresponse to an occasional isolated item. The value for the missing item was determined for the patient by calculating the mean of the subscale in which the missing item was found. Missing data could have been avoided by a closer review of the CBA and immediate follow-up as necessary with the subject when the completed CBA was picked up by the researcher.

Instrument clarity was found to be a limitation of the CBA and could contribute to an error of measurement. The subjects were requested to think back to their recent experience in the CCU and identify nurse caring behaviors that were most and least important to them at that time. A frequent response from the subjects when the CBA was explained was "the nurses were all wonderful." There seemed to be a tendency to think initially about the occurrence of nurse caring behaviors in the CCU rather than their importance. In retrospect, it would have been helpful to do two or three sample items with the subject as part of the instructions. However, the use of a verbal script and data collection by a single researcher decreased errors brought on by administrative variations. This helped insure consistent clarification of the CBA and its use.

Prior to data collection a letter explaining the study was given to the nursing staffs of the units involved. This

was done to gain support for the study and to increase knowledge and awareness of nursing research. However, it is possible that awareness of a study of nurse caring behaviors may have been sufficient to cause the nurses to change behaviors especially towards the patients they knew to be involved in the study. This may have influenced patients' responses to the CBA.

The larger the sample size the more representative it is of the population. Preferably, there should be 20 to 30 subjects for each subdivision of data (Polit & Hungler, 1987). The sample size of 44 is adequate; however, the two comparison groups of 22 in each group are relatively small in size. When individuals are not assigned randomly to groups but rather are placed in groups by self-selection based on a particular characteristic, there is a possibility that the two groups are not equivalent (Polit & Hungler). Two groups were formed for this study based on number of previous CCU admissions. This is a threat to the internal validity of this study.

In regard to the generalizability of this study, the sample characteristics must be considered. All the subjects in the sample ($n = 44$) had experienced a recent MI and as a patient in the CCU had been treated by non-surgical means. There were a number of patients who underwent coronary artery bypass grafting following their MI. This study did not include these patients. This needs to be considered

when making conclusions about patients with MI and their perceptions of nurse caring behaviors in the CCU.

Implications

Several implications for nursing practice and education become evident. It is important for nurses to recognize specific caring behaviors that patients perceive to be most important. Nursing practice is effective as patients' needs are met through caring behaviors. Patients with MI come to the hospital because of concern over physical symptoms. Most perceive themselves to be seriously ill. Tangible nursing behaviors in the CCU that meet human needs in a competent manner indicate caring to them. Competency with clinical skills and technology along with close monitoring and astute clinical judgment relieve fear and uncertainty.

Along with the behaviors of clinical competency in meeting human needs, patients with MI also identified humanistic, sensitive, reassuring behaviors of the nurse to be very important. Attitudes and values of the nurse towards the person being cared for are reflected in these behaviors. This may be especially important in the CCU as patients experience an unfamiliar threatening environment. The nurse by these behaviors humanizes the critical care environment. As nurses seek to provide holistic care to patients in the CCU, clinical competency along with kind, considerate, respectful behaviors indicate caring to the patient with MI. Nurses working in the CCU are highly skilled and they value clinical competency in caring for

critically ill patients. This is an important focus of critical care classes and ongoing education for nurses working in the CCU. These behaviors, however, should not be valued and emphasized over humanistic caring behaviors that patients perceive as important indicators of caring in the CCU.

Nurses need to verbalize and demonstrate to patients all aspects of nursing care. According to Watson (1979), nursing is a science and an art guided by a scientific knowledge base and a humanistic existential philosophy. To increase the value of all aspects of nursing care, the patient needs to be informed about nursing as care is delivered. Nurses must identify themselves as nurses and verbalize the purpose and value of all their behaviors. The nurse must educate the public about nursing and this can begin with the patient.

The findings of the study underscore the need for patient assessment to determine needs and individualize care. Prior admission to a CCU seems to be a factor that influences the perceived importance of certain nurse caring behaviors. Behaviors of the nurse that facilitate expression of feelings, meet human needs, and demonstrate humanistic, sensitive attitudes seem especially important to patients who have had previous admissions to the CCU. Also, there is a need for the nurse to validate with the patient that caring behaviors are being perceived as they are intended. This gives control and empowerment to the patient. Many of

the patients approached to participate in this study were very pleased and eager to share their feelings regarding nursing care. Just being asked to give their opinions seemed to provide feelings of satisfaction.

Consideration must be given by nurse educators as to what nurse caring behaviors are perceived by patients to be most important. Necessary components must be incorporated into curricula so students are prepared to provide all aspects of nursing care. A strong scientific and skills focus is important in nursing education, but there is more to nursing. The importance of attitudes and values that motivate humanistic, sensitive, and reassuring behaviors must also be recognized and emphasized in clinical performance and evaluation.

Recommendations

The findings of this study raise questions that suggest the need for further investigation. In this study and Cronin and Harrison's (1988) study, the CBA was used to identify which nurse caring behaviors in the CCU were most important and least important to patients with MI. It would be of interest to use the CBA with long-term patients in an extended care unit. Would items from the subscales of "helping, trusting relationship," "expression of positive, negative feelings," and "existential, phenomenological, spiritual forces" be of more importance to this population?

It would be interesting to include in the sample a wider range of patients with MI such as those who have had

surgical intervention in the form of coronary artery by-pass grafting following MI. Does the additional stress of surgery or more invasive medical treatment following MI influence perceptions of nurse caring behaviors?

In this study the variable of number of previous admissions to a CCU seemed to make a difference as to which nurse caring behaviors were most important and least important. This variable and others such as severity of illness need to be considered in further studies. An increased understanding of factors that influence perceptions and needs of patients will help the nurse provide individualized meaningful care.

As medical science and technology advance, it is the nurses' role to provide care that humanizes the critical care environment. There is a need for continued research into ways that nurses can maintain the dignity and integrity of patients in the CCU.

Finally, construct validity of the CBA by factor analysis is an important area for study. Factor analysis is a method for identifying clusters of related variables with the purpose of grouping together different measures of some underlying attribute (Polit & Hungler, 1987). Factor analysis would determine if the items of each subscale really "go together." At this point it is possible to read different concepts into the items.

Conclusion

The purpose of this study was to identify nurse caring behaviors in the CCU that were most important and least important to patients with MI. Findings include:

(a) assistance with human needs is very important, and this involves nurse behaviors of clinical competency;
(b) behaviors that are humanistic, sensitive, and reassuring are also very important; and (c) nurse behaviors that meet human needs, facilitate expression of feelings, and show respect for the patient in a sensitive, reassuring manner are more important to patients who have had previous admissions to the CCU.

The concept of care lies at the heart of nursing. Continued study of the concept and how nurses can effectively communicate caring to their patients is a significant challenge.

APPENDICES

PLEASE NOTE

**Copyrighted materials in this document have
not been filmed at the request of the author.**

**64-67, Appendix A - Caring Behaviors
Assessment**

**A copy of the Caring Behaviors Assessment
can be obtained from the authors;**

**Sherill Nones Cronin
and Barbara Harrison
Bellarmine College
Newburg Road
Louisville, KY 40205-0671**

University Microfilms International

Appendix B

Patient Demographic Data-Part 1

Your cooperation in providing the following information is appreciated. The information will help to give meaning to results of the study.

Q-1 Education. Circle highest grade or year of school completed.

None	00								
Elementary	01	02	03	04	05	06	07	08	
High school	09	10	11	12					
College	13	14	15	16					
Some graduate school	17								
Graduate/professional degree	18								

Q-2 What do you think your condition was while you were in the critical care unit?

1. _____ Good
2. _____ Serious

Q-3 Was this current admission your first experience as a patient in a critical care unit?

1. _____ Yes
2. _____ No, number of previous admissions to a critical care unit _____

Q-4 Do you have a person available to you with whom you feel you can talk about private matters?

1. _____ Yes
2. _____ No

Appendix B

Patient Demographic Data-Part 2

Q-1 Age. _____

Q-2 Gender.

1. _____ Male
2. _____ Female

Q-3 Treatment received for AMI while in the CCU.

1. _____ Medications (oral and intravenous)
2. _____ Percutaneous transluminal coronary angioplasty plus medications

Q-4 Time spent as a patient in the CCU.

1. _____ More than 24 hours but less than 48 hours
2. _____ More than 48 hours but not more than 7 days

Q-5 Agency.

1. _____ Hackley Hospital
2. _____ Mercy Hospital

APPENDIX C

Verbal Script

Hello _____. My name is Pat DeVries. I am a nurse and I teach nursing at Muskegon Community College. I frequently have students here at _____Hospital. I am also working on my Masters degree at Grand Valley.

I'm conducting a study that seeks to identify caring behaviors of the nurse that you, the patient, see as important in the critical care unit (coronary care unit, intensive care unit). I'm asking patients who have recently been in the critical care unit with a myocardial infarction (heart attack) to participate in the study. Your participation would involve responding verbally to a question and also filling out a questionnaire which you can do in 20 to 30 minutes at your convenience here at your bedside.

Your participation in the study is completely voluntary. You may withdraw from the study at any time, and your decision about participation will in no way influence the care you receive. Participation will involve no expected risks to you, and complete confidentiality will be maintained. Do you have any questions about the study?

Would you be willing to think back to your recent experience in the critical care unit and identify caring behaviors of the nurse that were most important and least important to you at that time?

Appendix D

Consent Form

This study aims to determine which caring behaviors of nurses in the critical care unit are most important and least important to patients with myocardial infarctions. If you agree to participate in the study you will be asked to respond verbally to a question and complete a questionnaire indicating the degree to which each of 63 nurse behaviors communicates caring to you. The questionnaire will take about 30 minutes and can be completed at your bedside at a convenient time.

Participation in the study involves no expected risks for you, and you will be able to withdraw from the study at any time with no effect on the care given you by the nurses. Complete confidentiality will be maintained and your name will not be used at any time in the report of the study. By participating in this study you may contribute to knowledge that will assist nurses in providing meaningful care to myocardial infarction patients in the critical care unit. This study is being done by Pat DeVries, RN, to help meet degree requirements for a Master of Science in Nursing from Grand Valley State University. Having read and understood the above information, I, _____, agree to participate in this study on _____, 1990.

Subject _____ Witness _____

LIST OF REFERENCES

List of References

- American Nurses' Association (1980). Nursing: A social policy statement. Kansas City, MO: Author.
- Bevis, E. O. (1981). Caring: A life force. In M. Leininger (Ed.), Caring: An essential human need (pp. 45-59). Thorofare, NJ: Slack.
- Brown, L. (1981). Behaviors of nurses perceived by hospitalized patients as indicators of care (Doctoral dissertation, University of Colorado at Boulder (1981). Dissertation Abstracts International, 42, 4361B.
- Brown, L. (1986). The experience of care: Patient perspectives. Topics in Clinical Nursing, 8(2), 56-62.
- Buerbaus, P. I. (1986). The economics of caring: Challenges and new opportunities for nursing. Topics in Clinical Nursing, 8(2), 13-21.
- Cronin, S. N., & Harrison, B. (1988). Importance of nurse caring behaviors as perceived by patients after myocardial infarction. Heart and Lung, 17, 374-380.
- Fry, S. (1988). The ethic of caring: Can it survive in nursing? Nursing Outlook, 36(1), 48.
- Gaut, D. A. (1983). Development of theoretically adequate description of caring. Western Journal of Nursing Research, 5, 313-324.
- Gaut, D. A. (1986). Evaluating caring competencies in nursing practice. Topics in Clinical Nursing, 8(2), 77-83.
- Henry, O. (1975). Nurse behaviors perceived by patients as indicators of caring (Doctoral dissertation, Catholic University, Washington, DC, 1975). Dissertation Abstracts International, 36(02), 652B.
- Keane, S. M., Chastain, B., & Rudisill, K. (1987). Caring: Nurse-patient perceptions. Rehabilitation Nursing, 12, 182-184, 187.
- Larson, P. J. (1984). Important nurse caring behaviors perceived by patients with cancer. Oncology Nursing Forum, 11(6), 46-50.

- Larson, P. J. (1987). Comparison of cancer patients' and professional nurses' perceptions of important nurse caring behaviors. Heart and Lung, 16, 187-192.
- Leininger, M. (1980). Caring: A central focus of nursing and health care services. Nursing and Health Care, 1, 135-143.
- Leininger, M. (1981). The phenomenon of caring: Importance, research questions, and theoretical considerations. In M. Leininger (Ed.), Caring: An essential human need (pp. 45-59). Thorofare, NJ: Slack.
- Leininger, M. (1984a). Care: The essence of nursing and health, (pp. 3-15). Thorofare, NJ: Slack.
- Leininger, M. (1984b). Caring is nursing: Understanding the meaning, importance, and issues. In M. Leininger (Ed.), Care: The essence of nursing and health (pp. 83-93). Thorofare, NJ: Slack.
- Leininger, M. (1986). Care facilitation and resistance factors in the culture of nursing. Topics in Clinical Nursing, 8(2), 1-12.
- Mayer, D. K. (1987). Oncology nurses' versus cancer patients' perceptions of nurse caring behaviors: A replication study. Oncology Nursing Forum, 14(3), 48-52.
- Mayeroff, M. (1971). On Caring. New York: Harper & Row.
- Naisbitt, J. (1982). Megatrends. New York: Warner Books.
- Polit, D. F., & Hungler, B. P. (1987). Nursing research: Principles and methods (3rd ed.). Philadelphia: Lippincott.
- Rieman, D. J. (1986). The essential structure of a caring interaction: Doing phenomenology. In P. Munhall & C. Oiler (Eds.), Nursing research: A qualitative perspective (pp. 85-108). Norwalk, CT: Appleton-Century-Crofts.
- Watson, J. (1979). Nursing: The philosophy and science of caring. Boston: Little, Brown & Co.
- Watson, J. (1985). Nursing: Human science and human care. Norwalk, CT: Appleton-Century-Crofts.