

ASSESSMENT PARAMETERS AND SPECIFIC
INTERVENTIONS IN THE NURSING DIAGNOSIS OF PAIN

A THESIS

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

COLLEGE OF NURSING

BY

ANITA L. HERNANDEZ, B.S.N.

DENTON, TEXAS
DECEMBER, 1973

The Graduate School
Texas Woman's University

Denton, Texas

November 15 1978

We hereby recommend that the prepared under

our supervision by Anita L. Hernandez

entitled Assessment Parameters and Specific

Interventions in the Nursing Diagnosis of Pain

be accepted as fulfilling this part of the requirements for the Degree of

Master of Science

Committee:

Barbara S. Cooper

Chairman

Paul A. Willard

Estelle D. Kurtz

Accepted:

Shelley Bridges

Dean of The Graduate School

ACKNOWLEDGMENTS

I wish to express my deepest appreciation to the members of my thesis committee, Dr. Barbara Carper, Grace Willard, and Estelle Kurtz for their able assistance in developing and completing this study.

A special note of appreciation to Dr. Carper, the chairman of my committee, whose encouragement, guidance, and inspiration was a source of strength in the achievement of this goal.

Also, special thanks to my family, whose trust and constant encouragement made reaching the goal possible.

I wish to thank Dr. Joan Reisch for her expert assistance in interpreting the data of this study.

A.L.H.

TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS.....	iii
TABLE OF CONTENTS.....	iv
LIST OF TABLES.....	vii
CHAPTER	
I INTRODUCTION.....	1
Statement of the Problem.....	2
Purposes.....	2
Background and Significance.....	3
Definition of Terms.....	7
Limitations.....	8
Delimitations.....	8
Assumptions.....	8
Summary.....	9
CHAPTER	
II REVIEW OF LITERATURE.....	11
Pain.....	11
Assessment Parameters.....	18
Nursing Diagnosis.....	24
Inferential Decisions in Nursing.....	34
Specific Interventions for Pain.....	39
Summary.....	46

CHAPTER

III	PROCEDURE FOR COLLECTION AND TREATMENT	Page
	OF DATA.....	47
	Setting.....	47
	Population and Sample.....	48
	Human Rights Protection.....	49
	Instrument.....	50
	Data Collection.....	52
	Treatment of Data.....	52
	Summary.....	53

CHAPTER

IV	PRESENTATION AND ANALYSIS OF DATA.....	54
	Introduction.....	54
	Description of the Sample.....	54
	Intrepretations of Data.....	56
	Summary.....	65

CHAPTER

V	SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS.....	67
	Summary.....	67
	Conclusions.....	70
	Implications.....	72
	Recommendations.....	75
	REFERENCES CITED.....	77
	ADDITIONAL REFERENCES.....	79

	Page
APPENDICES.....	82
A - Questionnaire.....	82
B - Demographic Data Sheet for Nurse	
Participants.....	85
C - Participant Consent Form, Texas	
Woman's University.....	86
D - Human Research Committee Approval.....	87
E - Agency Permission Sheet.....	88

TABLES

	Page
TABLE 1 DEMOGRAPHIC CHARACTERISTICS OF THE SAMPLE..	55
TABLE 2 MOST HELPFUL SIGNS, SYMPTOMS, AND CLUES FOR THE NURSING DIAGNOSIS OF PAIN.....	58
TABLE 3 SINGLE MOST HELPFUL CLUE FOR CONFIRMATION OF THE NURSING DIAGNOSIS OF PAIN.....	59
TABLE 4 MOST BENEFICIAL INTERVENTIONS IN THE NURSING DIAGNOSIS OF PAIN.....	61
TABLE 5 THE LEAST BENEFICIAL INTERVENTIONS IN THE NURSING DIAGNOSIS OF PAIN.....	63

CHAPTER 1

INTRODUCTION

The accurate description and diagnosis of pain is a complex and difficult task for the professional nurse. Pain and its expression within an individual includes cultural background, personality traits, various physical sensations, psychological disturbances, and changes in environmental interactions. To include all these facets of a total human being in one word "pain" is to describe only one part - the sensation itself. To adequately describe an individual who is having pain, the clinician must include all the facets of a total human being. At this point in time, however, there is no organized provision for such detailed observations.

Nursing is a profession that intervenes on behalf of the total individual. The profession must concern itself with classifying and organizing clinical data which would describe a complete human being. The effort invested in the organization of clinical data will be overwhelming unless specific steps are taken to begin the organization.

Nurses must decide which problems need to be accurately described and standardized. Each day nurses

are confronted with the problem of pain in numerous situations. Pain in an individual is a problem that must be accurately analyzed and diagnosed by the nurse to explain its meaning and its purpose to the patient.

To begin a process of diagnosing the problem of pain, the nurse must use assessment parameters. To insure accuracy of diagnosis and prompt treatment of pain, specific parameters must be recognized and utilized. Even though there are numerous assessment parameters for pain, it is uncertain that nurses consistently rely on specific parameters to diagnose pain. There is no documented evidence indicating the parameters that are consistently used in the nursing diagnosis of pain by nurses.

Statement of the Problem

The problem of this study was to determine the assessment parameters of the nursing diagnosis of pain and the specific nursing therapies used to relieve pain.

Purposes

This study was designed:

1. To identify the signs, symptoms, and clues nurses use to diagnose pain
2. To determine if nurses consistently rate specific signs and symptoms to formulate the nursing

diagnosis of pain

3. To determine the specific nursing interventions used for the treatment of pain

Background and Significance

Gordon (1976) states: "Diagnoses are shorthand ways of referring to a cluster of signs and symptoms that occur as a clinical entity. Nursing diagnoses describe health problems in which the responsibility for therapeutic decisions can be assumed by a professional nurse." In describing pain, McCaffery (1972) writes that the amount and type of body movement may give clues to the presence, severity, duration, location, and meaning of pain. She points out that some adults, because of cultural experiences and ethnic differences, vocalize complaints of pain louder and longer than other adults, or even children.

Crowley (1962), McBride (1967), and others report pertinent information on the characteristics of pain in their studies on the subject. There is a dearth of literature, however, on how nurses use available information. Baer (1970) recognized that problems specific to nursing are not dealt with in any systematic or organized way. A significant study by Hammond, Davitz, and Lenburg (1966) explored the processes by which nurses analyze their data in order to intervene for a patient. It showed

that nurses have begun to realize the necessity of organizing a clear articulation of the health problems that comprise the domain of nursing and the classification of the problems into a taxonomic system.

Such a system could be of value in nursing education, nursing research, nursing practice, and the health record collections (Gebbie and Lavin 1975). Feinstein (1975) describes a similar situation in medicine and notes that clinicians lack any formal means of classifying observations and have no place to put the information when they communicate with themselves and their colleagues.

Clinicians have no taxonomic vocabulary, for example, for classifying the illness that is the clinical interaction of the patient and his disease. No organized medical system exists for classifying the illness of patients which is constantly observed, analyzed, and treated by physicians. Clinical information is seldom suitably cited in literature because the clinical data are rarely arranged and correlated specifically; therefore, clinical distinctions cannot be written or spoken because there is no ordered taxonomic vocabulary (Feinstein 1976).

In a useful classification system each item should be distinct from all others so that one can know precisely in which circumstances to utilize any given label (Gebbie and Lavin 1975). For nurses to begin a

taxonomic classification, they must decide which nursing tasks are cognitive. The next step is a listing and defining of the characteristics of the tasks. It was determined in a study of nurses' tasks by Hammond et al. (1966) that the most frequently occurring nurse-patient incidents which called for a decision (thus a cognitive act) on the part of the nurse indicated that we know very little about the types of information nurses use to recognize pain.

The development of a taxonomic classification of pain should begin with a listing of signs and symptoms, or assessment parameters, that are descriptive of the pain experience. It is possible to begin the process of the diagnosis of pain knowing only the assessment parameters, according to Gebbie and Lavin (1975). Assessment parameters direct the observer toward those aspects of the patient's condition that would confirm the existence of a particular state.

Since pain is subjective, however, others must rely on verbal reports or judge gestures as indicators of pain. Gestures such as grimacing or crying legitimate pain, or make it plausible to observers. Fagerhaugh and Strauss (1977) describe this legitimation and assessing of pain as an associated process in which the observer correlates the gestures with the presence of pain.

In assessing and dealing with pain, listening and observing behavior are important diagnostic tools upon which to base diagnosis and nursing interventions. Inferences of pain can be made from patients' verbal and nonverbal signals. Through speech and other behaviors patients endeavor to communicate distress or pain. Through inferences and interpretations, the nurse makes judgments or in other ways reacts to these signals.

Kelly and Hammond (1967) and others have conducted studies to promote an understanding of the way in which nurses select, assemble, and use verbal and nonverbal signals, signs, and symptoms in reaching a judgment about the state of the patient. Nursing researchers agree that the inferential, or diagnostic task, should be central to all nursing practice, yet several studies seem to indicate that many nurses are still action-oriented in that they go directly from what they see to nursing action without analyzing their observations to determine the most appropriate nursing intervention among several that could be utilized. A study by Hammond (1966) concluded that for the most part, nurses were being taught to act, not to think. In other words, empirical rather than theoretical knowledge was the cornerstone of the nurse's education.

Because nursing is scientific humanism, with a concern for the whole person and his family, a knowledge

of theory on which to base nursing action is essential. To develop assessment parameters and specific interventions in nursing more knowledge based on research is needed. Through careful research and study, a taxonomy of the diagnosis of pain can be formulated to assist nurses to begin to scientifically organize the domain of nursing. Roy (1975) believes nursing diagnoses organized in a useful typology have the potential of changing nursing practice.

Definition of Terms

For a constant frame of reference the following definitions were used in this study:

1. Assessment Parameters Any signs, symptoms, or clues that will enable the nurse to assess pain
2. Nursing Diagnosis The judgment or inference which occurs as a result of nursing assessment (Monken 1973)
3. Sign An objective entity observed by the clinician (Feinstein 1976)
4. Symptom A subjective sensation that a patient reports (Feinstein 1976)
5. Pain A subjective sensation ranging from uneasiness to extreme distress in animal bodies
6. Clue Signs, symptoms, and other information related to the patient which are available to the nurse (Kelly 1964).

Limitations

This study was designed with the following limitations in mind:

1. The interpretation of the presence of pain is individual in nature
2. The research process itself may influence the respondent's behavior in that a respondent who is aware he is taking part in a study may alter his behavior accordingly (Fox 1966).
3. No attempt was made to control age and sex factors, education, or length of practice of the respondents

Delimitations

The following delimitations were selected for the study:

1. The study was done with thirty registered nurses who consented to participate in the study
2. The nurse participants were employees of a city-county hospital and three private hospitals
3. The participants were intensive care nurses.

Assumptions

The development of this study was based in part on the following assumptions:

1. There are several dimensions of the total

patient included in the diagnosis of pain

2. Patients show verbal and nonverbal signs and symptoms of pain

3. The nurse is influenced by her cultural background and her past personal experiences of pain in recognizing and interpreting pain in other people

Summary

This descriptive study was done to determine the assessment parameters of the nursing diagnosis of pain and those specific nursing interventions nurses use to relieve pain. Chapter I contained an introduction that was an overview of the study, a statement of the problem that identified the goal of the study, and an outline of the purposes and objectives in relation to the study problem.

Chapter I discussed the background and significance of the study, including current literature and research related to the study subject of the diagnosis and treatment of pain. Definitions to clarify meaning of terms used in various parts of the study, limitations and delimitations to define the scope of the study, and assumptions pertinent to the study, were also included in Chapter I.

Chapter II presents a review of nursing literature that deals with various aspects of the assessment and management of pain. The review is divided into five

sections. The phenomenon of pain and its characteristics were described in the first section. Assessment parameters, nursing diagnosis and inferential decisions in nursing were discussed in the following three sections. The last section of the review discussed specific nursing interventions for the problem of pain.

Chapter III presents a discussion of the essential components of the methodology utilized in this study. The procedures for collection and treatment of data are explained. Chapter IV is devoted both to an analysis of data and a discussion of the findings of the study. Tables depicting data and the finding are included for the purpose of clarification of data and study results. Chapter V consists of a summary of findings and resulting recommendations, implication, and conclusions.

CHAPTER II

REVIEW OF LITERATURE

The review of literature included research and current thinking in several areas related to the problem under investigation. Literature describing the phenomenon of pain, assessment parameters and the diagnosis of pain, inferential decisions in nursing, and nursing interventions for pain are presented in this chapter.

Pain

Pain is a symptom and is very often the thing that brings the patient to seek medical care. After the patient sees the physician or enters the hospital, the nurse is the member of the health team who is relied upon to alleviate the pain (McCaffery 1972). The nurse is not only the means by which a pain relieving drug is administered, but she is also a member of the health team who uses a knowledge of the principles of pathology, etiology, theories, and drug therapy in caring for the patient in pain. Pain relief is indeed within the realm of the nurse.

Pain relief is important because responses to pain may have harmful physiological effects such as strain

on vital body organs. Prompt pain relief is very important also because pain may prevent patients from cooperating with coughing, ambulating, and other activities that prevent pulmonary complications and recovery from illnesses (McCaffery 1972).

Pain is a universal experience that defies a satisfactory definition. The word "pain" brings to mind a variety of feelings and sensations. It is commonly used to refer to experiences that are unpleasant and are to be avoided. Pain occurs at both physical and mental levels, and on both these levels, pain results from a breach in a protective barrier, or wholeness of the person.

With physical pain there is an uncomfortable sensation that can be felt in some part of the body. With mental pain, there is an uncomfortable feeling that is difficult to localize in any part of the body. The protective barrier that is breached is psychic in nature with mental pain. There is a loss or injury to the person's emotional wholeness. In bodily pain there is a loss of the person's physical wholeness (McCaffery 1972).

The patient's behavioral response to pain can be influenced by psychological factors. An awareness of these factors assists the nurse in evaluating pain. Pain, of course, can be caused by psychological factors as well as the more obvious physical factors that appear. For

example, in the case of psychosomatic diseases. Many situations in life cause a person to feel depressed, anxious, guilty, or frightened. The person may be unable to discuss his personal unhappiness, and find it easier to talk about his pain. Also, pain may pose a personal threat. Its presence may threaten the patient's very life, or it may threaten his body image. The threat of pain often involves the experience of a loss, and therefore, may be associated with the affects of anxiety, fear, depression, and grief (McCaffery 1972).

A possibility of deep depression and even suicide may occur when and if the patient feels that pain has caused losses from which he may never recover. Feelings of helplessness, grief and mourning may ensue, and he may feel that he has lost control of his life situation (McCaffery 1972).

Pain is often described as having two components, sensory and response. Therefore, in dealing with pain, the nurse must be cognizant of the patient's perception of pain. The sensory component can be pinpointed and evaluated in terms of where the pain is located, and in terms of its quality, intensity, and chronology. Furthermore, this component has similarities from person to person.

The response component, however, may vary markedly among individuals, and is to a great extent dependent on

psychosocial factors such as personality and cultural background. The physician is usually concerned with the sensory component because of his focus on diagnosis and treatment, or where the pain is located. The nurse, on the other hand, should be concerned with the response as well as the sensory component because nursing intervention centers on providing relief from pain (Johnson 1976).

A third characteristic of pain is that it may be classified as either acute or chronic. The patient with acute pain will generally expect total relief since the cause is usually self-limiting or can be corrected. Acute pain is more frequently accompanied by feelings of anxiety than depression, whereas chronic pain is frequently accompanied by feelings of depression more than anxiety (Johnson 1976).

Melzack (1975), in his work with patients in pain, found that some patients have great difficulty describing their pain. Most of them seemed to be at a loss for precise words in their descriptions. Realizing that the word "pain" refers to an endless variety of qualities that are categorized under a single linguistic label, he prepared a check list for patients which allowed the patient to find appropriate words to fully describe and explain pain.

Feinstein (1967) presents a clear picture of pain through a Venn diagram (Figure 1). In the diagram, he deals with the spectrum of pain in coronary artery disease. The largest single set is clearly shown to be angina pectoris, classes I through III, with 18 patients out of 475. The same property occurring alone had the largest single subset of 115 patients. Five types of pain in coronary artery disease were designated as: angina pectoris, classes I through III, coronary failure, angina pectoris, class IV, rest pain, and myocardial infarction.

An effective method of assessing pain is to ask the patient to rate his pain on a scale of one to ten. Or the nurse may ask the patient to rate his discomfort as none, slight, moderate, or intense. Such rating is helpful in determining the action the nurse will take to relieve the pain (Melzack 1975).

There are several methods for measuring pain. The Hardy-Wolff-Goodell dolorimeter is used to measure pain through the amount of thermal radiation registered on an area of the skin that has been pricked to cause pain. When the prick is delivered to the skin, the pain causes a rise in thermal radiation from the skin. The more intense the pain, the higher the reading on the scale (Melzack 1975).

Another method of pain measurement compares a measured stimulus with pain of pathological origin. In

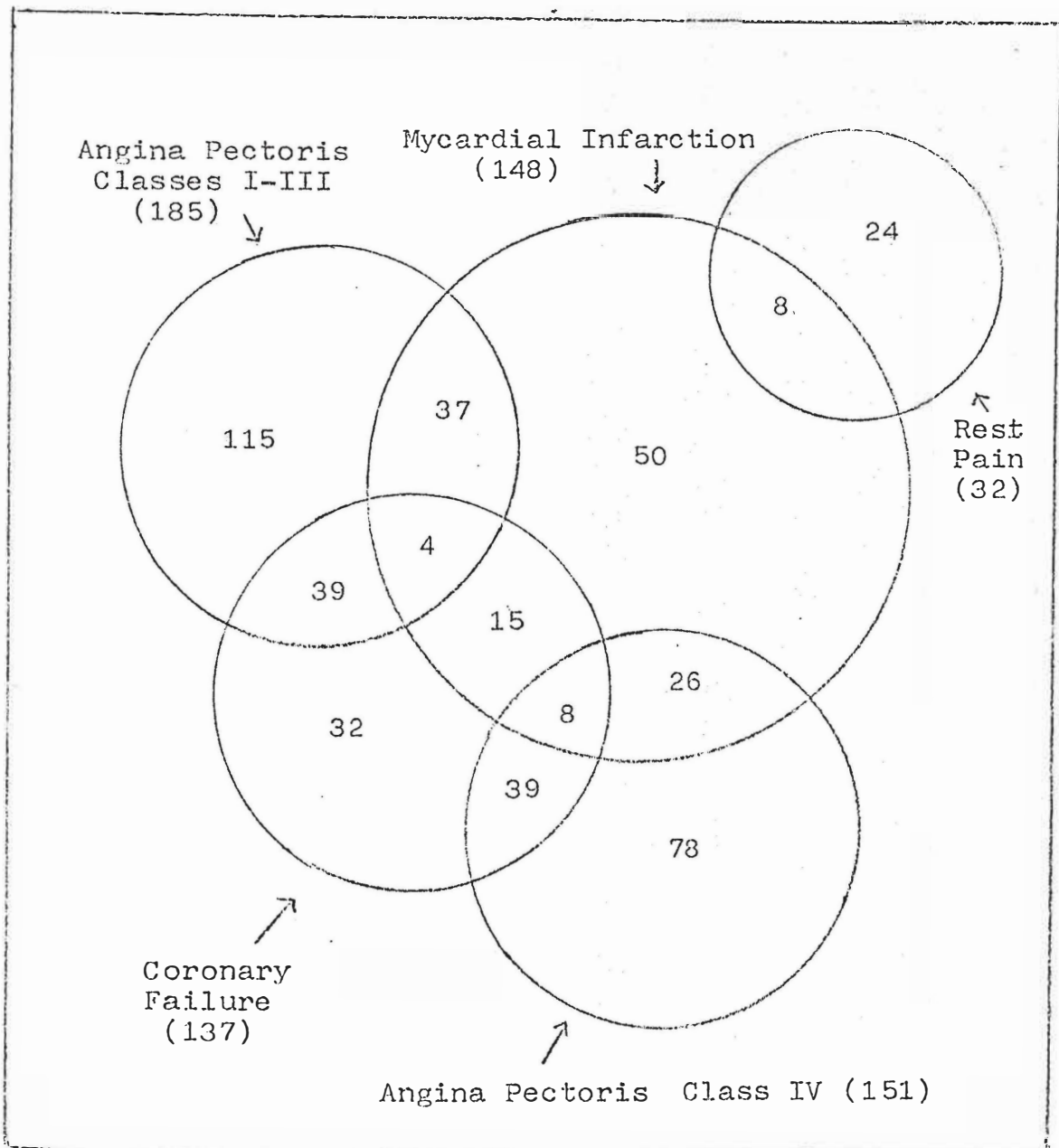


Figure 1. Spectrum and epidemiologic distribution of chest pain in 475 patients with coronary artery disease. Source: Feinstein, Alvan. Clinical Judgment. (New York: Robert Kreiger Publishing Co., 1967) p. 198.

this method, the patient compares the intensity of the pain he is experiencing with a noise that is gradually increased in intensity. The patient is asked to pinpoint

the intensity of the noise that most closely simulates his pain. The louder or more intense the noise, the more intense the pain the patient is experiencing.

For nurses to effectively assess, prevent, minimize and relieve pain, an awareness of the patient's medical and social "pain trajectories" is required. Fagerhaugh et al. (1977) stated that pain trajectories are "expected" or "unexpected" pain patterns of illnesses. For example, in a surgical patient's expected pain trajectory, he arrives at the hospital with some or no pain, he experiences postoperative pain after surgery for which he is sedated for several days, and then, providing no complications appear, he requires a minimum of pain relief for the remainder of his hospitalization. The staff expected his pain to follow this course.

If there is an unexpected pain trajectory, staff and patient disturbances may occur. For example, if a patient complains of intractable pain on a unit organized to care for manageable pain only, both the work order and the sentimental order of the unit are upset. The patient is frequently labeled "uncooperative" or "difficult" (Fagerhaugh et al. 1977).

The patient's pain trajectory does not figure very prominently in the staff's work concerns. Ignorance of this trajectory, however, can present interactional

problems that interfere with the patient's recovery (Fagerhaugh et al. 1977).

Assessment Parameters

A comprehensive assessment of pain is developed through the patient's pain experience and the nurse's understanding of that experience. The assessment is derived objectively from the patient's behavioral responses to pain. Knowledge of the characteristics of pain and the meaning of pain serves as a basis for the collection of assessment data and for intervention specific to the patient's needs. Among the most prominent signs of pain are patient vocalizations and facial expressions. When the patient does not vocalize, facial expressions alone may be an excellent indication of the pain experience. Clenched teeth, a wrinkled brow, biting of the lower lip, or tightening of the jaw are facial indications of pain used in assessment (Roy (1975)).

Body movements such as restlessness, or immobility of part of the body, rubbing of a painful part, or assuming a certain body position are other indications of the presence of pain. The patient's interactions with the environment may be at a minimum during pain episodes, since pain draws attention to itself and the patient tends to be preoccupied with the pain experience. Facial

expressions, vocalizations, and body movements are ways of dealing with the pain on the patient's part. Failure to respond when spoken to, lack of initiation of conversation, or disinterest in visitors, flowers, or cards sent to him are additional clues to the pain status of the patient. The nature, frequency, and duration of these behaviors should be noted. On the other hand, outbursts of temper and vocalization, or expressions of fear and guilt may provide obvious clues to the patient's status also (Roy 1975).

Nursing action for the relief of pain is directly dependent on an accurate assessment and formulation of a nursing diagnosis of pain. Signs, symptoms, and clues to the existence of pain are incorporated in the assessment and diagnosis. The focus of the diagnosis is on the patient's responses to the state of pain. The assessment format contains a complete listing of those signs, symptoms, and clues used in developing the diagnosis. Patient status data are used to make a summary statement, which is the nursing diagnosis, about the presence, the nature, and the extent of pain experienced by the patient (Roy 1975).

After devising an assessment format and completing the collection of data and the formulation of a nursing diagnosis of pain, the depth of understanding of the problem is increased. In addition, an increase in sensitivity to the presence of pain can occur (Roy 1975).

According to McCaffery (1972), the assessment of the behavioral responses to pain, the assessment of the factors that influence the patient's sensation of pain, and his response to pain constitute the process of nursing diagnosis. Assessment parameters such as facial expressions and body movements, and such pain characteristics as location, duration, and rhythmicity should be carefully considered when assessing the patient in pain. A notation of the quality of pain is important also. Hardy et al. (1952) stated that theoretically pain has only three qualities, namely pricking, burning, and aching. However, the patient and the nurse use many other terms to denote the quality of pain. Such words as pinching, shooting, stabbing, throbbing, and sharp and dull are used frequently to describe the type of pain experienced.

In determining the presence of pain, pain tolerance and severity are significant. The presence of pain is sometimes referred to as the pain perception threshold, or the least intensity of a stimulus necessary to produce pain. This threshold differs from person to person. If a person can tolerate a great deal of pain, his pain threshold is said to be low. In a hospital situation, when a patient calls the nurse and tells her about his pain, and that he would like relief from it, this action usually implies that the patient has reached his pain tolerance level and

that he does not want to tolerate it any longer (McCaffery 1972).

In assessing the patient's behavioral responses to pain, cultural attitudes towards pain must be carefully considered. Certain attitudes in one culture may be desirable, but in another culture, they would be undesirable. The presence or absence of expressions such as crying, moaning and groaning do not necessarily indicate the same pain experience in people of different cultural backgrounds. In some cultures, pain is viewed as punishment from God. The infliction of pain via spankings and other forms of discipline is one of the oldest forms of punishment. Therefore, pain and punishment become closely correlated in the mind of the child, and in the adult, the correlation is likely to be on a more unconscious level than in childhood (McCaffery 1972).

Tolerance to pain varies also from culture to culture. Zborowski (1962) systematically studied cultures such as "Old American", Italian, Jews, Irish, Southern Negroes, and others in regard to tolerance of pain. The Old American culture members were born in the United States. They attempted to control crying and other outward manifestations of pain. They did not want to "annoy" others with their complaints of pain, and tried to minimize pain in order to avoid provoking sympathy or pity. Members of some of the other cultures tested had a low tolerance for pain

and felt it was natural to cry, to moan, and to complain. This overt display of feelings seemed to be for the purpose of creating sufficient concern to cause others to take the best possible care of them.

A problem in assessment arises when a client tells the nurse one thing about his pain, and his behavior indicates another. Although the patient might say that he hurts, the physical signs of pain - the clenched jaws, the grimacing, the sweating, et cetera - are absent. On the other hand, the patient may tell the nurse that he is not in pain, yet the nurse can see that he is in anguish. It is important to be alert to the fact that these physical "indicators" frequently accompany acute pain but are often absent in chronic pain. The reason for a lack of these indicators in chronic pain is that the body cannot sustain physiological changes over a long period of time without exhaustion creeping in. As a result, the facial expressions and body movements common to acute pain may become less pronounced with chronic pain (Johnson 1976).

In order to make an accurate assessment of the patient in pain, Johnson (1976) suggests guidelines for determining the presence of pain. The first of the guidelines is to listen to the patient. If the patient states that he is in pain, the nurse should indeed assume he is in pain, and evaluate the situation on that basis. The second guideline is to observe for unusual signs

of pain. The third guideline is questioning the patient about how he feels. In questioning, the word "pain" should not be used exclusively. Words such as "hurt" or "discomfort" may bring out different levels of feeling.

Johnson (1976) has also devised an assessment guide for evaluation that can be used when analyzing pain. This tool was specifically designed to help nurses assess pain more completely and accurately through the organization of the factors to be considered in the evaluation of pain. Selected headings and subheadings of the guide that are particularly relevant to this study are presented in the following outline:

ASSESSMENT GUIDE FOR EVALUATION OF PAIN

Factors to be Considered

- I. Characteristics of pain
 - A. Location
 - 1. Areas of pain
 - 2. Areas without pain
 - B. Intensity
 - 1. Mild
 - 2. Moderate
 - 3. Severe
 - 4. Overwhelming
 - C. Quality of pain-words patient uses to describe pain
 - D. Chronology
 - 1. Mode of onset
 - 2. Precipitating factors
 - 3. Variations in intensity and quality
- II. Pain responses
 - A. Physiological responses
 - 1. Note changes in pulse, blood pressure, respirations

2. Note the presence of dilated pupils or nausea
- B. Behavioral responses
 1. Body activity increased or decreased
 2. Protection of painful areas
 3. Body position
 4. Facial expression
- III. Pain communication
 - A. How does the patient describe the pain?
 - B. Is the patient groping for meaning for the pain?
 - C. How does the patient relate pain to the pathology?
- IV. Coping techniques
 - A. Does the patient use any method to control the pain?
 - B. If not, what does he do when the pain occurs?
- V. Factors that can affect pain
 - A. Is fatigue consistently present?
 - B. Does the patient appear to be anxious, depressed, frightened?
 - C. Is the patient worried about the illness?
 - D. What are the patient's expectations in relation to pain?
- VI. Sources that should be used in assessing pain
 - A. The patient
 - B. Close family members
 - C. The medical record
 - D. Information about expected pain patterns that occur with the diagnosed pathology

Source: Johnson, Marion, "Assessment Guide for Evaluation of Pain" in Jacox, Ada, Pain (Little, Brown Company, 1977) 79-80.

Nursing Diagnosis

To Feinstein (1967) diagnosis is the focal point of thought in the treatment of a patient. In explanation of the focal point he states:

From diagnosis, which gives a name to the patient's ailment, the thinking goes chronologically backward to decide about pathogenesis and etiology of the ailment. From the diagnosis also, the thinking goes chronologically forward to predict prognosis and to choose therapy...diagnostic categories provide names for the intellectual locations in which clinicians store the observations of clinical experience. The taxonomy used for

diagnosis will thus inevitably establish the patterns in which clinicians observe, think, remember, and act (Feinstein 1967).

To a great extent the art of diagnosis depends on knowledge gained through careful assessment that are utilized in dealing with the patient's behavior responses to develop a nursing diagnosis. The diagnosis is a shorthand way of referring to a cluster of signs, symptoms, and clues that occur as a clinical entity. Gordon (1976) recommends the use of a diagnostic process including the recognition of signs, symptoms, and clues for developing a nursing diagnosis. The components of this process are: 1) state of the patient's health problem 2) etiology of the problem, and 3) signs and symptoms the problem presents. Thus, a process can be used to represent the state of the patient rather than a nursing activity for the relief of the problem.

When implementing this process, nurses who have thought of the patient's health problem in terms of functional concepts such as "the patient needs reassurance", or "the patient needs adequate oxygenation" could shift their emphasis to specification of the patient's problem. The nurse then asks why this patient needs reassurance, or why the patient needs suctioning, or any other nursing activity. The answer to her question will be a description of the patient's state. Until nurses can name the health

problem needing treatment nursing will remain a vague entity to many, including nurses (Gordon 1976).

Dodge (1975) defines nursing diagnosis as the end product of the nursing process. Abdellah (1957) defines it as a determination of the nature and extent of nursing problems of individual patients or families receiving nursing care. Munding (1975) sees the nursing diagnosis as a key to planned change from an unhealthful response of the patient to a healthful response.

To Aspinall (1976), nursing diagnosis is a process of clinical inference from observed changes in a patient's physical or psychological condition. If it is arrived at accurately and intelligently, it will lead to identification of the possible causes of symptomatology.

Currently in nursing, the summary statement, or nursing diagnosis, is made up of the behavioral responses of the patient and the cause of these responses from the patient. An example of a summary statement might be "decreased ambulation due to fear of incisional pain". However, a behavioral response may be symptomatic of a more generalized condition in the patient. A higher level of diagnostic identification is reached when the summary statement is a label which communicates the total nature of a unique patient problem, such as "situational powerlessness", for example (Roy 1975).

Hammond (1967) believes that the diagnostic process is crucial to nursing. He stated that the nurse needs to be competent in her information seeking strategy and to have a background of theoretical knowledge and understanding in order to conduct the search for cues and to evaluate the evidence.

What nursing diagnosis is not, according to Walker (1976) is a reiteration of the medical diagnosis. It is also not the medical diagnostic regimen, nor the nurse's problem with the patient. The nursing diagnosis and its subsequent management emerges from changes in the patient's condition and the style of living demanded by the condition, whether temporary or permanent. It emerges from adjustments in daily living for the individual and those close to him as an attempt is made to deal with the medical regimen and treatment.

Aspinall (1976) pointed out differences between nursing diagnoses and medical diagnoses. A nursing diagnosis may be indicative of a medical diagnosis, and in turn, a medical diagnosis may be indicative of a nursing diagnosis. For example, the nursing diagnosis of respiratory dysfunction may be a sign of the medical diagnosis of pulmonary embolus. And conversely, the medical diagnosis of fracture may be a sign of the nursing diagnosis of impairment of mobility. The nursing diagnosis tends to indicate impaired functioning of a body system, while the medical diagnosis tends to

indicate the underlying cause of the impairment.

There are several types of errors one can make when formulating nursing diagnoses. Munding and Jauron (1975) point out some of these mistakes, which they say are usually made by beginning nurse diagnosticians. The most frequent mistake is writing the diagnosis in terms of need and not in terms of patient response. For example, a statement such as "need for maintenance of proper fluid intake" is better stated as "inadequate fluid intake related to lethargy and pyrexia."

Still other possible errors include reversal of clauses and placing environmental factors in the first part of the statement and the patient in the last part instead of vice versa. In the reversal of clauses, an example is "Lack of knowledge of diabetic diet related to inability to make proper substitutions". In this case, the clause should be transposed. The diagnostic statement "Room excessively noisy because of TV being on constantly" should be revised and restated as "Inadequate rest" and the environmental factors are related to the adequate rest diagnosis. In fact, the patient is being diagnosed, not the room.

In diagnosing pain, McCaffery (1972) has found that it may be necessary to make more than one statement of nursing diagnosis if the client is experiencing more than one type of pain. If the client has a headache,

chest pain, and pain in the inguinal area, all due to different causes, then a separate diagnostic statement should be used for each pain.

The question may well be asked: Are nurses actually using the nursing diagnosis in their practice? Munding and Jauron (1975) have documented a demonstration project that was carried out to determine how well nurses were using the nursing process and the nursing diagnosis in particular. The nurse-model found that there was much confusion in nomenclature in regard to the nursing process and the nursing diagnosis. At times the pertinent patient response was described as a "problem", and at other times it was described as a "need". It was determined that there was a great need to clarify terms in order for nurses to understand each other. The nurse-model found that her documentation required approximately twenty hours a week which was more time than the staff nurse can devote to documentation. She was finally able, however, to condense documentation to a period of time that could be reasonably expected of the practicing staff nurse.

Aspinall (1976) stated that the nursing diagnosis is the weakest link in the nursing process. One main reason for her belief was that there have been relatively few articles written on the nursing diagnosis in contrast to extensive literature on the other aspects of the nursing process.

The material that has been written on the other aspects of the process reveals that this literature is not as completely developed as it should be in order to contribute significantly to the nursing diagnosis. For example, literature on physical assessment describes how to observe, palpate, and auscultate, but it does not indicate the significance of most abnormal findings and the correlation of multiple symptoms, when both are essential in arriving at an accurate diagnosis.

Also, according to McCaffery (1972) each nursing diagnosis for pain requires the use of four interrelated parts: 1) The type of pain the client is experiencing 2) The factors that influence the existence and characteristics of the pain sensation 3) The client's behavioral responses to the pain, and 4) The factors that influence the client's behavioral responses to the pain. The first two parts of the diagnosis analyze the client's pain sensation, while the last two parts analyze the client's behavior.

In the nursing diagnosis, the type of sensation the client is having can be described in terms of intensity, quality, location, duration, and intermittency. Client behavior can be described in terms of the factors that influence the client to respond to pain in his own particular way. The diagnostic statement should be formulated to include major determinants of the client's

behavior and those that are especially pertinent to the nursing management of pain.

In regard to the use of the nursing diagnosis of pain in the nursing care plan for the client, McCaffery (1972) states that its inclusion in the care plan is basic to nursing intervention for the client. It is usually one part of the plan, and serves to inform the members of the health team what is known about the client and his ability to handle his pain.

To determine how successfully the nurse identifies possible causes of the changes she observes, a comprehensive study was done in 187 hospitals in the United States. The respondents were asked to list possible causes instead of nursing diagnoses because of the lack of a clear-cut understanding of the meaning of the term "nursing diagnosis". The respondents were to enumerate "patient problems". It was found that these nurses seemed to have little overall ability to identify possible causes for the onset of physiological and psychological dysfunctions. The reason for their low performance, Aspinall (1976) stated, was that many nurses are still action-oriented and go directly from what they see to what they do, without analyzing their observations before centering on one and taking appropriate action.

In current literature, some writers have stated that, for nursing diagnosis, a taxonomy or system of classification is needed. The varied plethora of nursing concerns suggest this need. This taxonomy could be attained by a system involving naming, describing, identifying, stating critical attributes, and then classifying essential nursing phenomena into an ordered category system. The taxonomy would articulate and thereby focus attention on essential nursing concerns, as for example, the patient's and his family's responses to illness and the life experience. The classification would enhance recognition of specific problems as members of a general group and thereby relate them to established knowledge. It would also enhance clinical practice by making scientific knowledge and validated intervention approaches available (Bircher 1975).

Maslow's (1954) hierarchy of human needs, namely 1) physiologic needs 2) safety needs 3) belonging 4) self esteem, and 5) self-actualization, provides an organized principle from which a relevant classification system can be derived. Such a system, Bircher (1975) believes, would focus attention holistically on a person's level of strength in all areas of human experience, as well as suggest the specific learning task on the next phase of the life cycle. It would also recognize as basic to the achievement of all other levels the need of health.

Durand and Prince (1966) outline the steps in the development of the nursing diagnosis according to Figure 2. Duran et al. (1966) explain the steps in Figure 2 as a process of proceeding from the nurse's investigation and observations to the determination of the relatedness of facts that structure the data collection. The thought process through which the relatedness of facts is seen is influenced by the nurse's scientific knowledge, nursing experiences, and her definition of nursing. Gradually, the

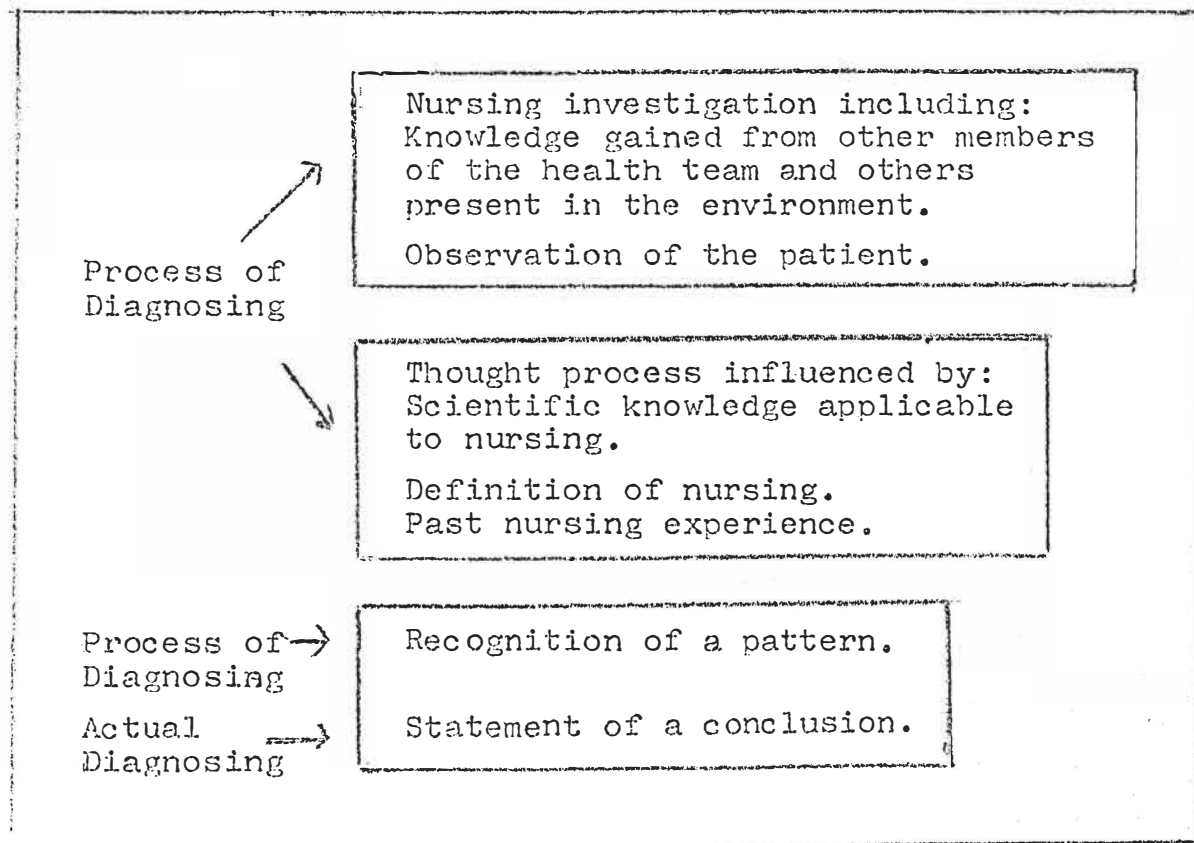


Figure 2. The steps in the development of a nursing diagnosis.

Source: Durand, M., and Prince, R. 1966. "Nursing Diagnosis: Process and Decision". Nursing Forum 5(4):50-65.

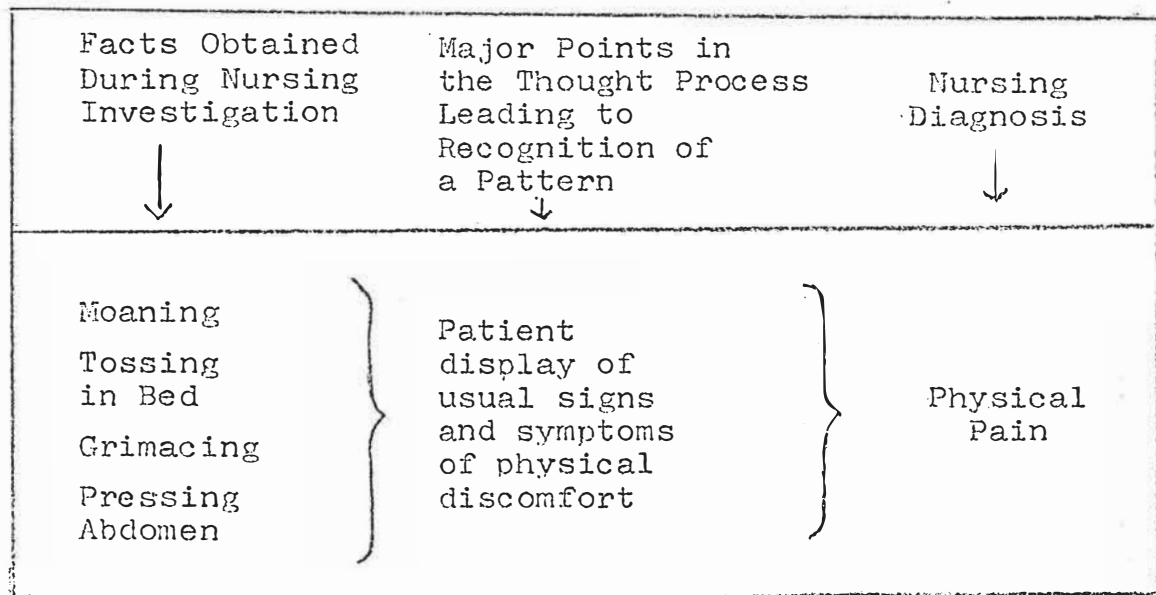


Figure 3. The development of a nursing diagnosis of physical pain by use of the Durand and Prince model for pain diagnosis. Source: Durand, M. and Prince, R. 1966. "Nursing Diagnosis: Process and Decision". Nursing Forum 5(4):50-65.

thought process draws the facts into a pattern, which then leads to the statement of conclusion. In developing a diagnosis of pain, Durand's model may be used as in Figure 3.

Inferential Decisions in Nursing

The inferential or diagnostic task is central to all nursing practice. The making of a nursing diagnosis is generally recognized as an independent, essential, and legal function of the nurse. In a study by Lesnick and Anderson (1955) seven independent, essential, and legal functions of the professional nurse were identified, one of which was the diagnostic task of the nurse.

The history of the development of professional nursing is replete with references to the observational function of the nurse, which is closely related to diagnostic skill. Florence Nightingale recognized and emphasized the use of observational skills in nursing. During the early years of nursing, the observational tasks consisted of observing, recording, and reporting. The observational task of the nurse is now a process that includes three specific operations: 1) Observation, which includes recognition of signs and symptoms presented by the patient 2) Inference, which includes making a judgment about the state of the patient and the nursing needs of the patient, and 3) Decision, which is making or determining the action which should be taken that will benefit the patient optimally (Resnick and Anderson 1955).

All three of these tasks are cognitive functions. However, the second and third functions, namely, making a judgment about the state of the patient and the nursing needs of the patient, and determining the most beneficial action to be taken, are most clearly intellectual tasks (Kelly 1966).

Certain features characterize the nurse-patient inferential situation. The inferences nurses make have high social significance. They are complex and followed by immediate action. The nurse makes numerous inferences

about the state of the patient using many kinds of data. Data ordinarily available to nurses are 1) physical signs and symptoms. 2) patient complaints 3) physician's orders 4) clinical history 5) medical history 6) social history 7) cultural background, and 8) physical or psychological factors in the environment.

From the vast amount of data available the nurse must select and utilize those cues which will enable her to make a correct judgment about the state of the patient. When a diagnosis of the state of the patient is made, it can be followed by a decision about the nursing action to be taken (Kelly 1966).

Davitz et al. (1969) conducted four studies of nurses making inferences of pain, since they recognized that many variables may influence the nurse's inference in regard to physical or psychological stress signaled by the patient. The researchers stated that variables such as age, sex, social class, and diagnosis, as well as the nurse's specialized training may have conditioned her to attend to certain cues from the patient and to disregard others. The researchers also felt these same variables may influence the nurse's judgment and inference in regard to pain. For example, the cultural background of the nurse may orient her to infer some situations as extremely stressful and painful and to

associate others with only mild discomfort.

The purpose of the studies (Davitz et al. 1969) was to determine variations in nurses' responses in direct relation to four selected factors. The first study considered the question: Do nurses from different cultures or subcultures infer different degrees of suffering in response to identical stimuli? In other words, the question of whether or not the particular cultural background of nurses was a factor influencing their perceptions of the degree to which a given patient suffered, was tested.

The results of the first study supported the hypothesis that inferences of suffering were related to the learned behavioral responses of a given culture or subculture. Nurses from the American White, American Negro, and Puerto Rican cultures were the respondents.

The second study was concerned with ascertaining if nurses from a given specialty tend to respond differently from nurses prepared in another specialty area. Results of this study showed there was no difference in the inferences made by nurses in four different specialty areas.

The third study was concerned with the patient diagnosis and its relation to the degree of suffering inferred. Results of this study showed there was a significant difference between the suffering ratings of burns and the three other category ratings, namely,

depression, diabetes, and leukemia. The nurses indicated that they believed the burn patient has a much higher degree of suffering than the patient with depression, diabetes, or leukemia.

The fourth study focused on the problem of inferences of suffering from the point of view of specific patient characteristics. For example, does a patient who is aged and indigent elicit different inferences of suffering than a patient who is young and affluent? The results of this study indicated that age and socioeconomic class influence the degree of inferred suffering. Youth was perceived to suffer more than the aged. Lower and middle classes seemed to suffer more than the upper class. There was no perceived difference in the suffering of male and female.

The process of inference begins when the patient comes under nursing care and continues until he no longer needs nursing care. Inferences and the nursing diagnosis may become more specific as the nurse learns more about the patient.

Durand and Prince (1966) state that nurses often revise their inferences and judgments as more useful information becomes available to them. Hammond et al. (1967) were in agreement with this inference and conducted a study to analyze the process whereby the nurse revises her

judgment of the state of the patient in the light of new information. The method of the Hammond study was to compare the nurse's revisions of judgment to those made by a mathematical model which also revised its judgment (in the form of probability estimates) about the state of the patient upon being given the same information as the nurse. The purpose of the Hammond study was to determine if the nurses moved too slowly to a conclusion or "leaped" to a conclusion with familiar problems. The results indicated that nurses were cognitively cautious and did not leap to conclusions. They tended to lag behind the model.

Specific Nursing Interventions for Pain

Nursing action is dependent on an accurate nursing diagnosis. Implications for nursing action may differ according to the nursing diagnosis. Pain relief is one of the overall goals of intervention for the nursing diagnosis of pain. Accomplishment of the goal may take one of several forms, however, such as total elimination of pain, a decrease in the intensity, duration, or frequency of pain will vary with different patients and their types of illnesses. McCaffery (1972) discusses some of the most effective nursing interventions for pain. Establishing a relationship with the patient who is experiencing pain is

a foundation for dealing with the pain problem. The basis for this relationship is a communication process between the nurse and the patient in regard to the pain the patient is experiencing. The patient's responses to his pain is a form of interpersonal communication. The nurse should indicate that she has received this message by communicating something to the patient.

The administration of analgesics is a common type of intervention for pain. In the United States, when a patient has pain, he is likely to expect relief to come from the administration of a medication. In a study of surgical patients by McBride (1967) the outcome was that these patients expected the nurse to respond to their complaints of pain by giving a medication. Many patients apparently have had little experience with other pain relief methods. Furthermore, patients apparently do not view the nurse as possessing the ability to offer a variety of pain relief measures.

The fact that some patients rely solely on medication for the relief of pain and do not expect more from the nurse has several implications for nursing care. Nurses need to educate patients to the fact that they can assist with pain relief in ways other than with medications. If the patient is reluctant to try other pain relief measures, these measures can be combined with analgesics

effectively. This combination can be a method of achieving the greatest degree of pain relief for many people.

Whatever measures the nurse uses, she should establish a relationship with the patient prior to the relief effort. The importance of this interaction was indicated by the findings of a study by McBride (1967) in which some patients received analgesics without the nurse exploring the meaning of pain with the patient. The outcome of this study was that fifty percent of the patients experienced no pain relief.

The administration of placebos is a valid nursing intervention for the relief of pain. The word "placebo" is derived from Latin meaning "I shall please". When a placebo is given, the patient is usually told that it will relieve his pain. An implicit suggestion of the purpose of a placebo generally enhances the pain relieving effect. In studies on pain relief by means of placebos, the mere fact that an injection was given in response to a pain complaint was usually a sufficiently implicit suggestion to obtain a desired placebo response (Keats 1956).

The power of suggestion was demonstrated by Keats (1956) when twenty-seven patients were told they were to receive a wonderful new drug that would completely relieve their pain. They received placebos, and one third reported pain relief. Another twenty-one patients were told they

were to receive an injection of a new drug that was not very effective, but that if it did not work, they would receive an injection one hour later that would certainly relieve their pain. Morphine was given first, followed by saline. Seventeen reported pain relief from the morphine, but four reported no improvement. It was highly interesting that morphine did not relieve the pain of those four patients, and even more interesting is the fact that those four patients reported complete pain relief one hour later when they were given only saline.

Promoting rest and relaxation is another nursing intervention for the relief of pain that can be very effective. There are several ways to assist the patient to relax. General comfort measures are important and may be employed, such as a backrub, proper positioning, and a comfortable bed. Relaxation may be promoted through the use of muscle relaxants or muscle relaxing tranquilizers. Or the patient may be taught or trained to relax by the Lamaze childbirth method, for example.

There are several other types of nursing interventions to relieve pain, one of which is the use of the patient group situation. Patients are taught about pain in a group instead of on a one-to-one basis. Other types are increasing sensory input by distraction and cutaneous stimulation or touch. In distraction, when the patient

focuses his attention on something other than his pain, he elicits a response that is incompatible with the pain response. Some types of cutaneous stimulation may serve as distractors. For example, the warm touch of a nurse's hand may provide a sensation other than the pain on which the patient may focus (McCaffery 1972).

The effect of nursing interaction on patients in pain was tested by Diers et al. (1972). Patients who complained of pain were assigned randomly to one of three nursing interventions, and measurements of pulse, respirations, verbal and nonverbal behavior were taken at the beginning, end, and one hour after the interaction. In the first type of intervention, the patient was treated as a feeling, thinking, and being-doing person. Pain was viewed as a psychosomatic phenomenon, partly physical, partly emotional, and partly cognitive. In the second type of intervention, the patient was treated as a thinking and being-doing person only. In the third type of intervention, the patient was treated solely as a being-doing person. A being-doing approach was described as an intervention to help the patient deal with the physical aspects of the experience, assuming that pain was mostly a physical sensation. The conclusion was that nursing interventions that treat the patient as "the whole person" - a feeling, thinking, and being-doing person - produce more pain

relief than interventions which eliminate one or more of these dimensions.

Three different approaches to the relief of pain were also tested by McBride (1967). In the first approach the interaction between the nurse and the patient was extensive in comparison to the other two approaches. The nurse explored the subject of pain, and in particular, the patient's own pain, with the patient. In the second approach, the patient's pain complaint was viewed primarily as a request for pain medication. Discussions of the patient's feelings were avoided, but there was a short interaction between the patient and the nurse on the subject of pain. The third approach was to give the patient the pain medication with very little if any interaction. There was a dramatic difference in the groups, with the first approach in which the interaction was extensive in comparison to the other two approaches affecting the most pain relief as measured by verbal behavior.

Pain relief and pain management, to Fagerhaugh and Strauss (1977) have profoundly political aspects. The nursing care of pain involves politicized action that takes place in a highly politicized arena if the patient is hospitalized. It is truly political because the staff is not all-powerful nor completely in control of all the issues that affect the patients. There is frequently plotting,

and making and breaking promises under pressure from other interested parties by both the staff and the patients.

Interactions between patients and nurses are being studied by researchers in an effort to determine the effect of the attitudes of the patient and the nurse on pain and the response to its treatment. Most studies have focused on the person experiencing the pain. There are, however, some studies that are focusing on the influence of the attitudes and behavior of the persons assessing or treating pain. This area of investigation seems to be potentially rich for identification of factors that influence how pain is experienced and responded to by a patient (Jacox 1977).

Interactions between patients and nurses in regard to pain relief and management are political in nature, according to Fagerhaugh and Strauss (1977), as well as interactions between the kind of passive, nonsentient patients and nurses. As in any other political arena, there may be frequent disagreement about how to attain either consensus or some measure of equity for both parties concerned, and there may be punishment for breaking the rules on either side.

The interactions that take place in the pain political arena point to the need to classify its exchange of information. Bircher (1975) concluded from a review of

nursing staff concerns that there was an urgent need for ordering and classifying information. In a sixty-bed inpatient hospital unit, over a three-week period, she found there were 399 identified concerns which ranged over the entire spectrum of possible human concerns - biological, psychological, social, spiritual, environmental, et cetera.

The varied plethora of nursing concerns calls for a system involving identifying, describing, stating critical attributes, and classifying information into a taxonomic vocabulary for clinical use. Such a taxonomy, the research asserts, would contribute to improvement in applying knowledge and learning and in developing and transmitting knowledge relevant to nursing practice.

Summary

The literature discussed in this chapter was concerned with the assessment, diagnosis, and nursing interventions for pain. A large portion of the material described the pain phenomenon and discussed diagnoses and making inferential decisions in regard to the alleviation of pain. Various specific nursing interventions for pain, including interventions without the administration of medications, were discussed. The need for a classification system, or a taxonomy, for nursing information was presented through the research and writings of concerned nursing authorities.

CHAPTER III

PROCEDURE FOR COLLECTION AND TREATMENT OF DATA

The methodology utilized in this descriptive study included the use of a questionnaire developed by the investigator to determine the most helpful assessment parameters that nurses use in diagnosing pain. The questionnaire was designed to determine the nursing interventions used for pain relief by nurses in actual clinical situations. Intensive care nurses from four area hospitals answered the questionnaire after assessing, diagnosing, and intervening in pain incidents. Each nurse completed a questionnaire making a total of thirty responses from the nurse participants.

Setting

Four institutions were selected in which to conduct this study, a city-county hospital, and three private hospitals. The intensive care units of these hospitals were the exact clinical location. The city-county hospital was in a large southwestern city in a university medical center. The bed capacity was approximately 900 beds. Approximately thirty nurses

were employed in the intensive care unit. The private hospitals were in the same large southwestern city as the city-county hospital. Each had a capacity of 150 beds. There were approximately twenty registered nurses employed in the intensive care units in each hospital. All of the hospitals used in this study had an open ward with the exception of one which had private rooms in the intensive care unit.

Population and Sample

Thirty registered nurses employed in intensive care units comprised the convenience sample from the population of registered nurses in four area hospitals. The intensive care nurses were approached by the investigator individually and asked to participate in the study. They were thoroughly informed of the nature of the study and asked to sign a consent form (Appendix C).

Because registered nurses, more frequently than other nurses, assess the patient's pain, make inferences in regard to the pain, and choose a therapy for it, this study was conducted using only registered nurses. No attempt was made to control the sex, educational level, age, or length of experience of the registered nurses in the study, however. To insure a truly representative sample from the population of all registered nurses, the

nurse-investigator chose a city-county hospital in a progressive medical center and three private hospitals. The nurses in these hospitals administered pain therapy to patients from various social and economic stratas.

The intensive care units of these four hospitals were selected as the exact location for the study because of the nursing advantage of close patient observation. Since the intensive care nurses were able to observe the patient constantly, there was a possibility of more precise and accurate records of pain observations than in other hospital settings.

Human Rights Protection

To protect the rights of the study subjects, a description of the study which included possible risks to the subjects and steps taken to minimize risks, was submitted to the Texas Woman's University Human Research Review Committee for approval. A specimen statement of Informed Consent and the method of consent from the subject were also submitted (Appendix D). After approval by the committee, each of the institutions used in the study received a letter of approval and was requested to review the proposal for the research.

At the beginning of each shift the nurse-participants were given a brief oral explanation of the study

which included these points:

1. The title of the study and the problem being studied.
2. Instructions on using the nurse-questionnaire.
3. Opportunity to ask questions concerning the study and/or their participation.

After verbal indication that the nurses understood their instructions, written consent was obtained and blank questionnaires were given to each participant. A box marked "Completed Questionnaires" was placed at the nurses' desk. At the end of each shift the nurse-investigator checked the contents of the box for completed questionnaires.

Instrument

Since no tool was found in the literature that seemed appropriate for identifying the signs and symptoms that nurses use to diagnose pain, a tool was designed by the investigator from the literature which focused on these points:

1. The diagnostic clues most important to the diagnosis of pain.
2. The specific interventions the nurse used to treat pain.
3. Those interventions judged to be beneficial.

The questionnaire was devised from the results of two pilot studies. The tool used in the first pilot study

was revised from the second pilot study. The first study using three registered nurses who were graduate students and two non-student registered nurses tested the first tool. From the results and criticisms of the study, a second tool was designed that simplified the questions and allowed more recording space between questions on the tool. Because each respondent listed several signs and symptoms of pain, a question was added to determine if a single clue would be judged to be more reliable than the others for a diagnosis of pain. A second pilot study was then conducted using four intensive care nurses and the revised tool that proved to be satisfactory.

The questionnaire was designed to determine whether a random pattern of naming signs and symptoms would emerge, or a general pattern would emerge. In addition, the questionnaire was designed to determine the rank in importance of the most effective nursing interventions used to treat pain.

Each nurse participant was asked to complete a demographic data sheet. To insure anonymity, a code number rather than a name, was used on each questionnaire. The first section of the questionnaire per se was used to differentiate patients with pain from patients with other problems, and also to determine if a diagnosis of pain was indeed made by the nurse participants.

The second question on the questionnaire requested the most helpful clues for diagnosing pain. The third question asked for confirmation of the diagnosis. To determine the most beneficial nursing interventions for the nursing diagnosis of pain, in the fourth question the nurse was first asked to list all the therapies used; then in questions five and six, the nurse was asked to specify the most and least beneficial treatments for pain used by the sample (Appendix A). The last section of the questionnaire requested the diagnosis of the patient described and whether or not he had undergone surgery.

Data Collection

After obtaining agency permission to conduct research in each institution, The investigator approached small groups of intensive care nurses in these institutions. An oral explanation of the study was given and voluntary participation was requested. Those who consented to participate in the study were asked to sign an informed consent form.

For the research, each nurse participant, at the beginning of a shift, was given a questionnaire to fill out. The contents of the questionnaire was concerned with the recognition of the signs and symptoms of pain and the diagnosis of pain in patients. After each pain incident, the

nurse completed a questionnaire, and at the end of the shift, the completed questionnaire was collected by the researcher. The first thirty completed questionnaires were accepted for the study.

Treatment of Data

To identify the signs, symptoms, and clues nurses use to diagnose pain, responses of thirty intensive care nurses to a questionnaire concerned with pain were studied. The analysis of the compiled data from the questionnaire involved listing the most frequent signs, symptoms, and clues named by the nurses in the process of diagnosing pain. The responses were then tabulated in order of frequency and presented by percentages of the sample.

Summary

This chapter presented the methodology utilized in the study. The design was descriptive research since it involved fact-finding via a questionnaire. The setting for the study was the intensive care units of a city-county hospital and three private hospitals. Registered nurse participants were approached and asked to take part in the study by answering the questionnaire which was concerned with assessment, diagnosis, and management of pain. Thirty nurses participated in the study.

CHAPTER IV
PRESENTATION AND ANALYSIS OF DATA

Introduction

This descriptive study was designed to determine the specific signs, symptoms, and clues, and the specific nursing interventions used by nurses in their diagnosis of pain. A nurse questionnaire designed by the investigator was used to elicit responses by allowing the nurses to rank-order the signs, symptoms, and clues. The nurses also rank-ordered the nursing interventions. Results were then tabulated by frequency and presented in percentages. The presentation and analysis of data in this chapter includes the tabulated results of the study presented in tables for clear interpretation.

Description of the Sample

The sample was composed of twenty-nine female nurses and one male nurse, with all age categories represented. The mean age of the sample was twenty-eight years. The group between twenty-five and thirty years comprised 43 percent of the sample of intensive care nurses. The next largest group comprised 23 percent of the sample and was twenty-five years old or younger. Two older groups, thirty-one to thirty-five, and thirty-six and over, each

TABLE 1

DEMOGRAPHIC CHARACTERISTICS OF THE SAMPLE

Characteristic		Number in Sample	Percent of Sample
Sex	Male	1	3%
	Female	29	97%
Age	25 years or less	7	23%
	26-30 years	13	43%
	31-35 years	5	17%
	36 or more years	5	17%
Education	Master of Science Degree	2	7%
	Bachelor of Science Degree	17	57%
	Associate Degree	7	23%
	Diploma School	4	13%
Nursing Practice	6 or more years	11	37%
	3-6 years	13	43%
	1-3 years	5	17%
	1 year or less	1	3%

comprised 17 percent of the sample. (Table 1).

All the participants in the study were registered nurses educated in the United States of America. The pre-dominant group (57 percent) of the nurses had a bachelor of science degree. Associate degree (23 percent) and diploma school graduates (13 percent) were participants, and two of the participants (7 percent) had a master of

science degree.

The sample was comprised of clinically experienced nurses. Approximately 43 percent, or thirteen nurses, had three to six years of nursing experience in clinical settings. Those nurses who had practiced nursing for six or more years comprised 36 percent of the sample. Only six nurses (20 percent) had three years or less of experience in nursing practice.

Interpretations of the Data

In the pilot study, all the respondents indicated an elevated blood pressure and a verbal complaint of pain as the most helpful signs of the presence of pain. Other helpful signs, symptoms, and clues indicated were an elevated heart rate, restlessness and irritability, poor cooperation in moving and coughing, inability to sleep, and facial expressions usually indicative of pain. Of these additional signs, symptoms, and clues, elevated heart rate and facial expressions of pain were listed most frequently by respondents.

In regard to the most helpful nursing interventions for the relief of pain, all pilot study respondents indicated that medicating the patient and providing a peaceful and comfortable environment - giving a back rub, repositioning, and offering reassurance - were the most

beneficial. The least beneficial intervention indicated by the respondents was ignoring the patient's pain complaint in the hope it would disappear. Verbal complaints by the patients as reported by the respondents were, for example, "I am hurting" or "this pain is killing me. Could I have something for it?"

Table 2 summarizes data from the actual study that is concerned with the most helpful signs, symptoms, or clues that assisted the nurse-participants in their nursing diagnosis of pain. Most of the nurses considered the general appearance of the patient (96 percent), verbal expression (70 percent), vital signs changes (53 percent), body movements (50 percent), and facial expressions (50 percent) as the most helpful clues in diagnosing pain. The general appearance of the patient included such signs as restlessness, apprehension, diaphoresis, and muscular tension. The category in Table 2 labeled "verbal expression" included only statements of pain, whereas the category "body movements", included screaming, moaning, massaging a body part, or lying still.

The category "vital signs changes" included a change from baseline determination of blood pressure, temperature, pulse, and respirations. These changes, as indicated in the responses, usually represented an elevation in vital signs, with only one participant

TABLE 2
MOST HELPFUL SIGNS, SYMPTOMS, AND CLUES FOR
THE NURSING DIAGNOSIS OF PAIN

Signs, Symptoms or Clues	Number in Sample	Percent of Sample
General Appearance	29	96%
Verbal Expression	21	70%
Vital Sign Changes	16	53%
Facial Expression	15	50%
Body Movements	15	50%
Position of Patient	5	17%
Patient Request for Pain Medication	3	10%
Characteristics of Pain	2	7%
Palpation of Part	2	7%
Inability to Sleep	1	3%
Past Experience with Patients in Pain	1	3%
Inability to Cooperate with Treatment	1	3%
Unresponsive to Comforting and Soothing Words	1	3%
History of Patient	1	3%

indicating a low blood pressure for an open-heart surgical patient as evidence of pain. The position of the patient (17 percent), a patient request for pain medication (10 percent), and behavior changes (10 percent), were considerably less important for this sample in diagnosing pain.

The category labeled "characteristics of pain" included redness and/or swelling, and palpation of a part (7 percent), with tenderness to touch. The least

important categories, inability to sleep well, inability to cooperate with treatments, and unresponsiveness to comforting and soothing words, each accounted for 3 percent of the sample. Also, the nurse's past experience with pain and the history of the patient accounted for 3 percent of the sample.

In the second section of the nurse questionnaire the nurse participants were asked to specify one clue, sign, or symptom which was most helpful in confirming their nursing diagnosis of pain. Table 3 summarizes the responses to this section. Of the sample, eleven responses (37 percent) named verbal expression as the single most helpful clue to the confirmation of the diagnosis of pain. Nine responses

TABLE 3

SINGLE MOST HELPFUL CLUE FOR THE CONFIRMATION
OF THE NURSING DIAGNOSIS OF PAIN

Sign, symptom, or Clue	Number in Sample	Percent of Sample
Verbal Expression	11	37%
General Appearance	9	30%
Patient Actions	2	7%
Vital Sign Changes	2	7%
Electrocardiogram	2	7%
Patient History and Diagnosis	2	7%
Type of Pain	1	3%
Palpation of Part	1	3%
Interaction with Environment	1	3%

(30 percent) indicated that the general appearance of the patient was the single most helpful clue.

Approximately 10 percent of the sample stated that patient's actions, such as splinting the area of pain, or "jumping" when examined, were most important. Seven percent of the sample stated that vital sign changes, ECG changes during pain, and the patient's history and diagnosis at the time of pain, were the most important. Only one nurse-participant each (3 percent) listed the type of pain the patient was experiencing, such as cardiac versus headache pain, or palpation of a part, as an important sign for the confirmation of diagnosis.

Table 4 summarizes data related to the nursing interventions used in the diagnosis of pain. The participants were asked to list the most beneficial interventions. From the sample of thirty there were twenty-six responses (87 percent) indicating medication was an essential treatment for pain. Repositioning the patient (43 percent), and reassuring the patient (37 percent), were next in importance. Three responses (10 percent) indicated that establishing a comfortable environment was an important treatment. The data showed that these three responses were from nurses who were describing a nursing intervention for patients with cardiac problems. In all the hospital units used for the study, the noise factor was high, with

TABLE 4
MOST BENEFICIAL INTERVENTIONS IN THE
NURSING DIAGNOSIS OF PAIN

Intervention	Number in Sample	Percent of Sample
Pain Medication	26	87%
Repositioning	13	43%
Reassurance	11	37%
Comfortable Environment	3	10%
Administration of IV Analgesic	2	7%
Explanation of the Meaning of Pain	1	3%
Check Vital Signs, Monitor, or IV Fluids	1	3%
Take Slow, Deep Breaths	1	3%
Bedrest	1	3%
Unclamping Urinary Catheter	1	3%
Apply Oxygen	1	3%
Apply Restraints	1	3%
Insert Airway	1	3%
Pillow for Splinting	1	3%

respirators, oxygen and monitors operating, and a large number of therapists working in the area. This situation seemed to be beyond the control of the nurses, thereby providing a possible explanation for such a small percentage of the sample naming as the most beneficial intervention "a comfortable environment".

The category "administration of intravenous analgesic versus intramuscular medication" in table 4, was specifically named by nurses describing cardiac pain. Also, one respondent (3 percent) indicated the importance

of patients (cardiac patients in particular) knowing and talking about pain. Specific nursing interventions, such as checking vital signs, monitoring, administering intravenous feedings and medications (3 percent), taking slow deep breaths (3 percent), and providing bedrest (3 percent) were also listed. For patients who were unable to communicate, for example, patients with serious head injuries, or intubated patients, specific nursing interventions were used, such as unclamping urinary catheters (3 percent), applying restraints (3 percent), inserting airways (3 percent), and using pillows to splint (3 percent).

The members of the sample were asked to differentiate between the most beneficial and the least beneficial interventions used to treat patients with the nursing diagnosis of pain. Table 5 summarizes the results of the least beneficial interventions employed. Each category in this table received a small percentage of responses with several respondents stating that any intervention was of benefit to the patient. The highest percentage (10 percent), or three respondents, stated that using a mild pain medication was least beneficial. This finding can probably be explained by the fact that the question was stated in terms of the least beneficial intervention for the patient; however, this particular nursing intervention, in terms of the process of

TABLE 5
THE LEAST BENEFICIAL INTERVENTIONS IN
THE NURSING DIAGNOSIS OF PAIN

Intervention	Number in Sample	Percent of Sample
Mild Pain Medication	3	10%
Repositioning	3	10%
Checking Abdomen for Distention	2	7%
Vital Signs	2	7%
Soothing Words	2	7%
Giving Short, Sharp Responses to Complaints	2	7%
Ignoring Patient Pain	1	3%
Diversions	1	3%
Leaving Patient Alone	1	3%
Showing Impatience	1	3%
Telling Patient to "Relax"	1	3%
Applying Cold Cloth	1	3%
Increasing Activity	1	3%
Checking Patient Environment	1	3%
Asking Patient on First Postoperative Day if He is Having Pain	1	3%
Administering Vasodilators	1	3%
Withholding Pain Medication for Low Blood Pressure	1	3%

diagnosing pain, is highly indicative of the severity of the pain the patient suffers.

Ten percent of the sample (3 respondents) listed repositioning as the least beneficial to the patient in pain. This finding sharply contrasted with the previous finding that 43 percent of the sample stated this

intervention was most beneficial to the patient. The data showed that the 3 percent who disagreed with the 43 percent responded that repositioning aggravated the patient and created more pain. Similar remarks in regard to aggravating the patient by repositioning were noted by two nurses (7 percent) who, after bleeding was ruled out, were required by doctor's order to check abdominal girth frequently.

Seven percent of the respondents stated that vital sign changes, which may be indicative of several dysfunctions, and soothing words (7 percent) were of little help. The following responses, though listed individually, all represent unconcern and nonrecognition of pain by the nurse: 1) Giving short, sharp responses to complaints (7 percent), 2) Ignoring patients' pain (3 percent), 4) Leaving patients alone (3 percent), 5) Showing impatience (3 percent), and 6) Telling patients to "relax" (3 percent).

Other nursing activities such as applying a cold cloth to the head (3 percent), increasing the patient's activity (3 percent), checking the patient's environment (3 percent), or asking the patient on the first postoperative day if he is having pain (3 percent), were of relatively unimportant assistance. One of the respondents stated that the least beneficial intervention was the administration of an oral vasodilator for a

possible heart attack victim. The explanation applies here that, in terms of benefit to the patient, the administration of this medication was least effective; however, in determining the severity of pain, for example, angina versus myocardial infarction, the administration was of utmost diagnostic importance. An interesting response, that of withholding pain medication for a low blood pressure, involved a postoperative open-heart surgical patient who, after bleeding had been ruled out, was denied pain medication because of low blood pressure. This response gave further support to the responses of the majority of respondents who stated that the elevation of vital signs was indicative of pain. The respondent explained that the vital signs of this surgical patient were elevated initially; however, after enduring pain for an extended period of time, the patient's body was unable to compensate for the pain.

Summary

A questionnaire developed by the nurse investigator was used to determine the most helpful signs, symptoms, or clues, and specific nursing interventions used by nurses in the diagnosis of pain. A sample group of thirty registered nurses were given the nurse questionnaire to complete. After a brief explanation of the study,

the nurses consented to select a patient who had experienced pain, and to describe the most important clues used in the diagnosis of the patient's pain, the nursing intervention used, and their effects on the patient. The study was conducted at four area hospital intensive care units. The nurse participants were advised to use an anonymous patient who was experiencing pain, and to formulate a nursing diagnosis of pain for the patient.

CHAPTER V

SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to determine signs, symptoms, and clues nurses use to diagnose pain, to determine if nurses consistently rate specific signs and symptoms to formulate the nursing diagnosis of pain, and to determine the specific nursing interventions used for the treatment of pain.

Assessment parameters of pain were determined by using a questionnaire administered to a convenience sample of thirty registered nurses employed in intensive care units of four area hospitals. The questionnaire was developed by the nurse-investigator and contained questions concerning the most helpful signs, symptoms, and clues for making inferences for developing nursing diagnoses of pain, and the most effective nursing interventions for the treatment of pain. The intensive care nurses were asked to participate in the study on a voluntary basis.

The problem of the study was to determine the assessment parameters of the nursing diagnosis of pain and to determine the specific nursing therapy used to

relieve pain. The first purpose of the study was to identify the signs, symptoms, and clues nurses use to diagnose pain. The second purpose of the study was to determine if nurses consistently rate specific signs and symptoms to formulate the nursing diagnosis of pain. The findings of this study indicate that nurses consistently recognize five signs, symptoms, and clues that pertain to the pain phenomenon in hospitalized patients. Furthermore, they consistently utilize these signs, symptoms, and clues in forming a diagnosis of pain, and in subsequently treating the pain the patient experiences. It was found that nurses consider the general appearance of a patient (96 percent), verbal statements of the presence of pain made by the patient (70 percent), vital sign changes of the patient (55 percent), facial expressions of the patient (50 percent), and body movements of the patient suggestive of the presence of pain (50 percent), as the most important clinical clues for developing a nursing diagnosis of pain.

To confirm the diagnosis of pain there was no overwhelming response in any category. Either verbal expression (37 percent) or general appearance (30 percent) were named as the single confirming clue to the diagnosis. These two categories accounted for over 60 percent of the sample. No identifiable pattern indicated how the nurses obtained clues. Either the patient's subjective statement

was supported by objective evidence from the patient, or the objective sign was confirmed by the subjective complaint.

From this study it was noted that no nurse participant named verbal complaint as the sole clue to the diagnosis of pain, whereas, general appearance was frequently the only clue named. Thus it was noted that verbal complaints of pain did not stand alone as an important sign of pain, but rather as one indication of pain, or as a verifier of pain.

This study on pain has shown that nurses selectively acknowledge and treat different types of pain. Most nurses will acknowledge the patient's statement "I am having chest pain", and will treat the pain with utmost speed as compared with most other types of pain. As the data of this study has shown, cardiac nurses rely on rapid pain relief methods such as the administration of intravenous medications rather than intramuscular medications, and will consistently treat cardiac pain immediately. In general, the more objective signs of pain that are present such as clenched fists, screaming, or apprehension, and objective support for the subjective statement, the more readily the nurses will be convinced the patient is indeed having pain. This conclusion is shown in Tables 2 and 3 where it can be noted that the

objective signs supported the subjective statements of the patients.

The third purpose of the study was to determine the specific interventions used for the treatment of pain. The research revealed the most important nursing interventions for the nursing diagnosis of pain were the administration of pain medication (87 percent), repositioning the patient (43 percent), and reassuring the patient (37 percent), with no definite pattern shown by the nurses who described the least beneficial pain interventions. These findings support McBride's (1967) conclusion that nurses use pain medication almost exclusively for pain relief. Of the responses, 18 percent dealt with the nurse's behavior in regard to the recognition of pain. These responses included the nurse's actions of either unconcern for the patient's pain, or refusal to acknowledge it.

Conclusions

This study leads to the conclusion that assessment parameters of pain can be determined through the scientific method of investigation and the use of an appropriate questionnaire. The participants of the study demonstrate that nurses are consistently able to recognize the signs, symptoms, and clues that pertain to pain. Furthermore, from these signs, symptoms, and clues, nurses are able to form a

nursing diagnosis and to utilize the diagnosis.

The conclusion may also be reached that nurses are selective in their use of signs, symptoms, and clues that are indicative of pain in that they tend to rate clues in regard to their usefulness to the development of a nursing diagnosis. The specific nursing therapies used by nurses and the process of the development of the therapies can be determined through studies designed and conducted to elicit responses that ultimately state the therapies utilized. The process consists of a careful and deliberate consideration of clues relating to the presence of pain, and the rating of the clues that lead to the development of inferences and a nursing diagnosis to be used in pain therapy.

Current nursing literature urges that nurses become less action-oriented, which involves action without the thought process that draws related facts into a pattern for subsequent action. This study indicates that nurses can intelligently analyze and diagnose pain, and thus are able to contribute to the classifying and organizing of clinical data on pain.

Authorities in the nursing field deplore the lack of a classification of data into a taxonomic system for nursing practice. The nurse-participants of this study indicate that nurses can satisfactorily contribute

to a taxonomic vocabulary by listing signs and symptoms, or assessment parameters, that were descriptive of the patient's pain experience, and this listing is the first step in the development of a taxonomic vocabulary that forms the basis of a taxonomic system. The pain phenomenon, indeed, seems to lend itself to such a taxonomic vocabulary and system.

Many nursing researchers agree that the inferential process, or diagnostic task of the nurse, should be central to nursing practice. They believe that research to organize nursing diagnoses into a useful typology has the potential of changing and improving nursing practice.

Implications

A patient usually, at some point in his hospitalization period, experiences pain. It is an experience expected by the staff and anticipated by the patient. The recognition of pain by nurses should be one of the most thoroughly studied areas of nursing management. Beyond pain medication for treatment, few nurses have a definite regimen for dealing with pain. As the data of this study revealed, the majority of respondents (50 percent or greater) listed only one pain relief method - medication for pain. This fact indicates an urgent need for nurses and nursing to study and understand all facets

of pain, the manifestations of pain, and the making of differential diagnoses for pain.

Pain is the single most important symptom by which an individual is aware of a malfunction or injury to the body. Pain per se cannot be measured; only the effect of pain on the body can be measured. Therefore, the only way to determine the presence of pain in patients is by some form of communication with the patients themselves.

Usually the patient is limited in his vocabulary in regard to describing pain to the nurse who must make an accurate nursing diagnosis of pain and treat it. Consequently, the nurse must frequently be a translator for the patient. The nurse must guide the patient in order to make inferences for the development of a differential diagnosis. In short, the nurse must understand the patient and his feelings in order to help the patient understand pain.

In a clinical setting, the nurse is rarely inactive. She is either constantly caring directly for patients, or directing and organizing the care by others. In the administration of this care, time is an important element for the patient and the nurse. Though far from ideal, nurses will continue to care for large numbers of patients at one time. This situation creates demands to treat pain rapidly; there is little time for lengthy assessment of pain by nurses. Institutions must meet

demands and provide methods for rapid accurate assessment of pain. A concentration by student nurses on important body processes (pain, inflammation, healing, psychological and physiological compensatory mechanisms) in addition to disease states is essential to the education of nurses. The review of literature for this study revealed that little is known about how certain groups of patients with different types of pain cope with pain. This information implies that nurses need to study coping mechanisms for different types of pain more thoroughly, and to establish a taxonomy, or classification system, from their research findings in this area. It is hoped the results of this study will contribute to the development of a taxonomy for making inferences about pain and to the decision-making process for the accurate treatment of pain.

Through this study and similar studies of pain and its treatment, nurses can become more perceptive of their ability to recognize signs and symptoms of pain, and to diagnose pain and treat it. They can also become more perceptive in regard to nursing interventions that are the most and the least effective in treating pain. A primary responsibility of a nurse is to assist the patient who is in pain, and therefore, studies on pain have implications that can assist the clinical nurse in minimizing the pain the patient is experiencing

through development of a knowledge of the pain phenomenon, its causes, and its treatment.

Recommendations

Based on the findings of the study, the following recommendations for further study on pain are made:

1. A study be conducted to examine a nurse's personal experiences and attitudes toward pain, and how they affect the treatment of pain.
2. A similar study be conducted to determine the assessment parameters of other patient problems, such as depression, anxiety, and hostility in patient behavior.
3. A study be conducted that compares the most beneficial nursing interventions for pain according to the nurses, to the most beneficial nursing interventions according to the patients who experienced the pain and its treatment.
4. An exploratory study be conducted in which the patient states the interventions by the nurse that were most helpful during specific pain episodes.
5. An exploratory study be conducted to determine the actions by nurses that are the most helpful to patients with specific types of pain.
6. A study be conducted to describe the process or processes by which a nurse diagnoses a specific patient

problem of pain.

7. In view of the fact that this study elicited many diverse reactions and a heterogeneity due to the varied types of patients whose pain was diagnosed, a study could be conducted involving a group of patients with the same type of pain. For example, patients with abdominal, cardiac, or renal pain could be studied to further delineate signs, symptoms, and clues specific to those types of pain.

REFERENCES CITED

- American Psychological Association. 1974. Publication Manual. Baltimore, Maryland: Geramond/Pridemark Press, Inc.
- Abdellah, Faye. 1957. Methods of identifying covert aspects of nursing problems. Nursing Research 6(1):4-23.
- Aspinall, M. 1976. Nursing diagnosis: the weak link. Nursing Outlook 24(7):432-37.
- Bircher, A. 1976. On the development and classification of diagnoses. Nursing Forum 2(1):11-29.
- Davitz, L.; Baer, E.; and Lieb, R. 1970. Inferences of physical pain. Nursing Research 19(5):388-98.
- Diers, D.; Schmidt, R.; McBride, M.; and Davis, R. 1972. The effect of interactions on patients in pain. Nursing Research 21(5):419-426.
- Dodge, G. 1975. Forces influencing a move toward nursing diagnosis. American Operating Room Journal 22(2):157-58.
- Durand M. and Prince, R. 1966. Nursing diagnosis: process and decision. Nursing Forum 5(4):50-65.
- Fagerhaugh, Sizuko, and Strauss, A. 1977. Politics of pain management pp. 22-73. Menio Park, California: Addison-Wesley Publishing Co.
- Feinstein, Alvan. 1967. Clinical judgment. pp. 73-198. New York: Robert E. Kreiger Publishing Co.
- Fox, David. 1966. Fundamentals of research in nursing. p. 178. New York: Holt, Rhinehart, and Winston.
- Gordon, Marjory. 1976. Nursing diagnoses and the diagnostic process. Current Drugs and Clinical Nursing Today. p. 72. New York: American Journal of Nursing Co.

- Hammond, K.; Schneider, R.; Vancini, M.; and Kelly K. 1967. Clinical inference in nursing: revising judgments. Nursing Research 16(1) 38-45.
- Hardy, J.; Wolff, H.; and Goodall, H. 1952. Pricking pain threshold. Social Experimental Biological Medicine 80:425.
- Jacox, A. 1977. Pain. p. 79. Boston: Little Brown Co.
- Johnson, M. 1976. Pain: how do you know it is there, and what to do about it. Nursing 76 6:48-50.
- Keats, A. 1956. Postoperative pain: research and treatment. Journal of Chronic Diseases 4:72.
- Kelly, K. 1966. Clinical inference in nursing: a nurse's viewpoint. Nursing Research 15(1):23-25.
- Lesnick, M.J., and Anderson, Bernice. 1955. Nursing practice and the law. p. 259. Philadelphia, Pa.: J.B. Lippincott Co.
- McBride, M. 1967. Nursing approach: pain and relief. Nursing Research 16:377-44.
- McCaffery, Margo. 1972. Nursing management of the patient with pain. pp. 2-175. Philadelphia: J.B. Lippincott Co.
- Melzack, R. 1975. Using the language of pain. Pain. 12(3):2.
- Maslow, Abraham. 1954. Motivation and personality. pp. 8-36. New York: Harper Row.
- Mundinger, M., and Jauron, G. 1975. Developing a nursing diagnosis. Nursing Outlook 23(2):94-98.
- Roy, Sister Callista. 1975. The impact of nursing diagnosis. American Operating Room Nursing Journal 21(6):1823-26.
- Walter, J.; Pardee, G.; and Molloy D. 1976. Dynamics of problem-oriented approaches. Philadelphia: J.B. Lippincott Co.
- Zborowski, M. 1962. Cultural components in response to pain. Journal of Social Issues 8:16.

ADDITIONAL REFERENCES

- Bailey, D. 1967. Clinical inference in nursing: analysis of nursing action patterns. Nursing Research 16(2):154-160.
- Bonica, J., and Procaeci, P. 1972. Recent advances on pain. Springfield, Illinois: Charles Thomas, Publishers.
- Bowman, M. 1973. Patients in pain. Nursing Mirror 136: 28-29.
- Campbell, Claire. 1977. Nursing diagnosis and intervention in nursing practice. New York: John Wiley and Sons.
- Cody, J.W. 1976. Dear pain. American Journal of Nursing 76(6):960.
- Collenson, W.A. 1975. New approaches in the management of pain. Nursing Forum 3:8-9.
- Crowley, D. 1962. Pain and its alleviation. Los Angeles: University of California Press.
- Crue, B. 1975. Pain, research, and treatment. New York: Academic Press.
- Dincher, Judith, and Stidger, Suzanne. 1976. Evaluation of a written simulation format for clinical nursing judgment. Nursing Research 25(4):280-284.
- Florman, A. 1975. Pain: current concepts in pain and analgesia. New York: 25 East 22nd St. 10010.
- Galum, R. 1974. Sensory physiology and behavior. New York: Plenum Press.
- Gaumer, W. 1974. Psychological potential of chronic pain. Journal of Psychiatric Nursing 12(9):23-24.
- Gebbie, Kristine, and Lavin, Mary Ann. 1975. Classification of nursing diagnosis. Saint Louis: C.V. Mosby Co.

- Gregory, J. 1969. Pain and its causes. New York: Academic Press.
- Grier, M. 1976. Decision making about patient care. Nursing Research 25(2):105-109.
- Hart, D. 1974. The treatment of chronic pain. Philadelphia: F.A. Davis Co.
- Hensen, Ann, and Donald, Thomas. 1968. A conceptualization of decision making. Nursing Research 17(5): 436-43.
- Henderson, Virginia. 1967. The nature of nursing. New York: MacMillan Co.
- Janzen, R. and Diedel, W. 1972. Pain: basic principles, pharmacology, and therapy. Baltimore: The Williams and Wilkins Co.
- Livingston, W. 1953. What is pain? Scientific American 183(5):43-55.
- Menta, M. 1976. Treating intractable pain. Nursing Times 72(8):123 6-37.
- Monken, S. 1975. After assessment, then what? Nursing Clinics of North America 19(1):107-113.
- Mines, S. 1974. The conquest of pain. New York: Gosst and Dunlap.
- Melzack, R. 1973. The puzzle of pain. New York: Basic Books, Inc.
- Seyart, R. 1967. The spectrum of pain. London: Rupert Hart-Davis Book Co.
- Smith, S.E. 1975. How drugs act: drugs and pain. Nursing Times 71:(8):1379-80.
- Soulairac, A., and Cahn, J. 1969. Pain. New York: Academic Press.
- Sternbach, R. 1974. Pain patients: traits and treatment. New York: Academic Press.
- Thigpen, L., and Drane, J. 1967. The Venn diagram: a tool for conceptualization of nursing. Nursing Research 16(3):436-43.

- Tower, M. 1974. Causes of pain and determination of a diagnosis. Nursing Times 70(12):1965-57.
- Trigg, R. 1970. Pain and emotions. New York: J.B. Lippincott Co.
- Turabian, Kate. 1973. A Manual for Writers. Chicago: University of Chicago Press.
- Vennikow, Y.A. 1974. Sensory reception. New York: Springer-Verlag Co.
- Voris, H., and Whisler, W. 1973. Treatment of pain. Springfield, Illinois: Charles Thomas, Publishers.
- Zotterman, T. 1967. Sensory mechanisms. New York: Elsevier Publishing Co.

APPENDIX A

QUESTIONNAIRE

The Diagnosis of Pain and Nursing Interventions

1. How did you know the patient was having pain? Describe:
 1. Signs, symptoms
 2. Verbal complaint of the patient
 3. Both of the above?
 4. Other?
2. What were the most helpful signs, symptoms, or clues that influenced your decision that the patient was having pain?
 - 1.
 - 2.
 - 3.
 - 4.
3. What do you consider the single most important clue that confirmed your decision that the patient had pain?

4. What nursing interventions did you use for this patient?

1.

2.

3.

Others (use back)

5. What were the most beneficial interventions for this patient?

1.

2.

3.

6. What were the least beneficial interventions?

1.

2.

3.

7. Primary medical diagnosis _____

Surgery? _____ Type? _____

Days postoperative _____

APPENDIX B

DEMOGRAPHIC DATA SHEET FOR NURSE PARTICIPANTS

Please circle the letter, A,B,C, or D, that is appropriate for your age, sex, length of practice and level of education.

1. Age

A	B	C	D
Under 25 years	25-30 years	31-35 years	36 years and over

2. Sex

A	B
female	male

3. Length of Practice

A	B	C	D
1 year or less	1 year - 3 years	3 years - 6 years	6 years and over

4. Level of Education

A	B	C	D
Diploma School	A. D.	B. S.	M. S.

Please record the circled letters from questions 1-4 on this page in the following blanks:

These letters form your I.D. number.

APPENDIX C

TEXAS WOMAN'S UNIVERSITY

(Form B - Oral presentation to subject)

Consent to Act as a Subject for Research and Investigation:

I have received an oral description of this study, including a fair explanation of the procedures and their purpose, any associated discomforts or risks, and a description of the possible benefits. An offer has been made to me to answer all questions about the study. I understand that my name will not be used in any release of the data and that I am free to withdraw at any time.

Signature

Date

Witness

Date

Certification by Person Explaining the Study:

This is to certify that I have fully informed and explained to the above named person a description of the listed elements of informed consent.

Signature

Date

Position

Witness

Date

TEXAS WOMAN'S UNIVERSITY.

Human Research Committee

Name of Investigator: Anita Hernandez Center: Dallas
Address: 1856 Place One Lane Date: April 11, 1978
Garland, Texas 75042

Dear Ms. Hernandez:

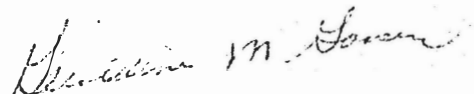
Your study entitled Assessment Parameters and Specific Interventions
in the Nursing Diagnosis of Pain

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

Please be reminded that both the University and the Department
of Health, Education and Welfare regulations require that written
consents must be obtained from all human subjects in your studies.
These forms must be kept on file by you.

Furthermore, should your project change, another review by
the Committee is required, according to DHEW regulations.

Sincerely,



Chairman, Human Research
Review Committee
at Dallas

APPENDIX D

TEXAS WOMAN'S UNIVERSITY
COLLEGE OF NURSING
DENTON, TEXAS

DALLAS CENTER
1810 Inwood Road
Dallas, Texas

HOUSTON CENTER
1130 M.D. Anderson Blvd.
Houston, Texas 77025

AGENCY PERMISSION FOR CONDUCTING STUDY*

RE: _____

GRANTS TO Anita Hernandez, R.N.

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

Assessment Parameters and Specific Interventions
in the Nursing Diagnosis of Pain

The conditions mutually agreed upon are as follows:

1. The agency (may) (may not) be identified in the final report.
2. The names of consultative or administrative personnel in the agency (may) (may not) be identified in the final report.
3. The agency (wants) (does not want) a conference with the student when the report is completed.
4. The agency is (willing) (unwilling) to allow the completed report to be circulated through interlibrary loan.
5. Other: _____

Date _____

Signature of Agency Personnel

Anita Hernandez
Signature of student

Barbara A. Cooper
Signature of Faculty Advisor

Fill out and sign three copies to be distributed as follows: Original - Student;
first copy -- agency; second copy -- T.W.U. College of Nursing.

APPENDIX E