

NURSING DIAGNOSIS: RESPONSE COMPONENT AND
PREDICTED GOAL OUTCOME CONGRUENCE

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TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS	iii
TABLE OF CONTENTS	iv
LIST OF TABLES	vii
Chapter	
1. INTRODUCTION	1
Statement of the Problem	2
Justification of Problem	2
Conceptual Framework	4
Assumptions.	9
Hypothesis	10
Definition of Terms	10
Limitations	12
Summary	12
2. REVIEW OF THE LITERATURE	13
Concept of Nursing Diagnosis	13
Goal and Structural Definition of Nursing Diagnosis	19
Role of Nursing Diagnosis and the Nursing Process	25
Nursing Diagnosis Status and Research Studies	28
Summary	44
3. PROCEDURE FOR COLLECTION AND TREATMENT OF DATA	46
Setting.	46
Population and Sample	47
Protection of Human Subjects	48
Instrument	48

	Page
Data Collection	52
Step 1	53
Step 2	54
Step 3	56
Treatment of Data	58
 4. ANALYSIS OF DATA	 64
Description of the Sample	64
Findings	64
Interrater Reliability of the Ziegler Instrument.	66
Quality of the Nursing Diagnosis Statements	67
Quality of the Response Component of the Nursing Diagnosis Statement	70
Quality of the Predicted Outcomes	74
Congruence Classification of the Response and Goal (Predicted Outcome) Sets	74
Test of the Hypothesis	77
Additional Findings	78
Summary of Findings	80
 5. SUMMARY OF THE STUDY	 87
Summary.	87
Discussion of Findings	90
Conclusions and Implications	98
Recommendations for Further Study	99
 APPENDIX A	 101
APPENDIX B	103
APPENDIX C	105
APPENDIX D	108

	Page
APPENDIX E	116
APPENDIX F	118
APPENDIX G	120
APPENDIX H	138
APPENDIX I	141
REFERENCE NOTES	143
REFERENCES CITED	144

LIST OF TABLES

Table	Page
1. Nursing Diagnosis and Predicted Outcome Data Sheet	53
2. Summary Table of Frequency of Judge Ratings for Criteria Number 13, Composite Score, and Congruence Classification	59
3. Summary Table of Judges' Evaluation of the Response Component Items by Criteria Number, Composite Score, and Total Number of Criteria Met by Each.	60
4. Summary Table of the Frequency of the Response Components and Outcome Goals Classified into the Same Category by Number of Judges	61
5. Summary Table of the Number of Response Evaluation Criteria Met by Congruence Classification of the Response and Goal Set	62
6. Frequency and Percentage of Nursing Diagnosis Statements Meeting the Ziegler Instrument Criteria	68
7. Nursing Diagnosis Statements Meeting Each of the Ziegler Instrument Nursing Diagnosis Criteria	69
8. Rank Order Frequency and Percentage of the Total Number of Response Evaluation Criteria Met by the Response Component. . .	71
9. Rank Order Frequency and Percentage of the Response Component Met by Response Criteria	73

Table	Page
10. Frequency and Percentage of the Total Number of Predicted Outcome Criteria Met	75
11. Quality of Predicted Outcome: Rank Order Frequency and Percentage of Predicted Outcomes Meeting the Criteria	76
12. Chi-square Summary Table of Observed and Expected Response Criteria Met by Congruence Classification	79
13. Chi-square Summary Table of Congruence Classification of Response and Goal Sets by Number of Goal Criteria Met	81

CHAPTER 1

INTRODUCTION

Nursing diagnosis is not new to nursing. The concept of nursing diagnosis, which is an important part of the problem-solving nursing process, has been debated in professional literature for over 25 years (Henderson, 1978). Diagnosis is the key to planned change in the nursing process, by identifying the unhealthful human response--the nurse indicates what should change (Mundinger & Jauron, 1975). Diagnosis, therefore, gives direction and purpose to the nursing process. The predicted outcomes are derived from the human response component of the nursing diagnoses and correlate with these. When the predicted outcomes directing nursing intervention are compared to the actual outcomes as the results of nursing intervention, evaluation of one cycle of the nursing process is completed.

Nursing diagnosis is now being recognized for its potential to improve the quality of nursing care, and in addition, nursing diagnosis should have an effect on the autonomy and accountability on the scientifically

based practice of nursing. However, how the nursing diagnosis statement can best be written so that it acts as a guide to the remaining steps of the nursing process has not been fully determined.

Statement of the Problem

The problem of this study was to determine if there is an association between the quality of the response component of the nursing diagnosis statement and the congruence of the response component with the predicted outcome in nursing care plans generated by graduate nursing students. In addition, the quality of the nursing diagnosis statement and the predicted outcomes were evaluated.

Justification of Problem

The needs for nursing diagnoses are many, but they may all be incorporated in one need--the need for survival of professional nursing. Nursing diagnoses may be the key to better directed independent nursing actions and may make the nursing process truly client-oriented. When the nursing process includes the nursing diagnosis, it then provides a rational approach to the provision of effective client

care. Nursing needs to document that effective goal-oriented, problem-resolving care is provided as well as describe what nurses can treat independently.

Nursing diagnosis can guide the planning and implementation of specific nursing actions and facilitate the identification of outcome criteria necessary for the evaluation of the nursing care plan (Viamontes, 1982). However, according to Field (1979), the use of nursing diagnosis also has the potential for improving the quality of care by individualizing the total plan of care. The individualized plan of care allows for the continuity of the care because it is goal-directed.

Nursing is beginning to classify the diagnoses of human responses which are in the domain of nursing. General agreement has not been completely reached regarding just what consistent behavior and situations constitute the many concerns of nursing. However, some concepts, such as anxiety, grieving, and impaired skin integrity have been identified clearly so that labels can be used as diagnostic categories (Bircher, 1975; Gebbie & Lavin, 1975; Roy, 1975).

Nursing diagnoses are relevant to determining the scope of nursing practice. The association of the

response component of the nursing diagnosis statement and predicted outcomes can be used to evaluate if the desired outcomes are actually met. The quality of the response component of the nursing diagnosis statement is important because it is the pivotal point in the nursing process upon which evaluation and, therefore, accountability are based. Until nursing can state clearly its goals for intervention and provide evidence that nursing interventions make a difference in patient care, accountability cannot be ascertained.

The development of goals through predicted outcomes based on a comprehensive understanding of the response component of the nursing diagnosis statement is crucial (Marriner, 1975). Nurses have the responsibility for planning care for the client, but without measurable specific goals, autonomy and accountability cannot be established in nursing.

Conceptual Framework

The conceptual framework for this study was the four-phase nursing process model by Yura and Walsh (1973). The four phases identified in the nursing process model consist of assessment, planning,

implementation, and evaluation. The nursing process model provides a systematic method utilized by nursing to facilitate client attainment of optimal health care. The quality of the nursing care received by the client is dependent upon an accurate nursing diagnosis. The nursing diagnosis statement provides the key to the nursing process and, in addition, gives meaning and direction to all other phases in the nursing process.

The initial nursing process phase begins with assessment of the client and the situation. Data are collected, synthesized, compared, and conclusions are drawn. The conclusion that results from the synthesis of this collected data is the nursing diagnosis which reveals the actual or potential health problems.

Therefore, it is important to the present study to define the two components essential to the statement of the nursing diagnosis and the association of the goal with the nursing process and predicted outcomes in order to identify the client's problems. Mundinger and Jauron (1975) defined two components necessary for the nursing diagnosis statement: (a) the client's potential or actual unhealthful responses which nursing

interventions can help to change in the direction of health and (b) the identification of the stressor etiology which maintains the unhealthful response. The nursing diagnosis should consist of one response component and one etiology component joined by a "related to" phrase (Ziegler, Note 2). The response component is the client condition that warrants changing. The goal, which flows directly from the response component, is a client response that is more healthful. The etiology component must be potentially changeable and suggest nursing interventions. The absence of the etiological specific nursing interventions affects the goals within the nursing process.

The nursing diagnosis is, therefore, an essential component of the assessment phase of the nursing process and also directs the planning phase of the nursing process. The actual diagnosis determines the direction for the planning of nursing care for the client (Durand & Prince, 1966) and provides the bridge to connect the assessment and planning phases of the nursing process.

The next step, the planning phase, is the determination of what can be done to assist the client; this

involves setting goals, judging priorities, and designing methods to solve problems (Yura & Walsh, 1978). Careful and deliberate goal-setting is essential to this phase of the nursing process. The blueprint is drawn when the goals are defined and the methods are identified which will accomplish the desired established goals. These outcomes provide a way to identify, measure, and evaluate behavior indicating progress toward resolution of problem-solving and should reflect the response component of the nursing diagnosis statement. Therefore, only with comparison of the predicted measurable outcomes which reflect a desired change in the unhealthful response component of the nursing diagnosis statement against the actual outcomes, will the nurse be able to determine that resolution of the problem was made through appropriate intervention.

By assessing the client's problems systematically through knowledgeable observation, perception, communication, and validation of these findings, the nurse can provide qualitative data from which the accurate diagnoses are made and sound planning is developed (McCain, 1965). The nursing diagnosis statement thus

provides the basis for the specifically planned nursing interventions and the expected outcomes which guide the individual plan of care.

The third phase in the nursing process is the implementation of care which is the initiation and completion of the actions necessary to accomplish the desired goals. During this phase, there is continual assessment and evaluation of the health problems, care effectiveness, and identification of the progress toward outcome attainment.

The final phase of the nursing process is the evaluation phase. Evaluation provides for measurement of the interventions and validation of the expected outcomes which are indicated by the nursing diagnosis statement. The evaluation of the client's progress indicates which problems have been resolved and which need to be reassessed, replanned, reimplemented, and reevaluated (Carlson, 1972).

The quality of the response component of the nursing diagnosis statement provides a sharp focus for the establishment of an association of the response directed outcomes in the nursing care plan and the predicted outcomes. One would reason that if

the response component of the nursing diagnosis statement has certain characteristics, response specific client outcomes are more likely to occur. However, no evidence exists to date to support this belief.

Assumptions

For the purposes of this study, the following assumptions were made:

1. The nursing process is the methodology used to deliver patient care by professional nurses.
2. Nursing diagnosis is an essential step of the nursing process.
3. The predicted outcomes stated in the nursing care plan reflect the response component of the nursing diagnosis statement and are stated in a healthful direction.
4. Nursing accountability is based on the results of comparison among the unhealthful client response diagnosed, the predicted client outcomes, and the actual outcomes.

Hypothesis

For the purposes of this study, the following hypothesis was identified:

There is a positive association between the quality of the response component of the nursing diagnosis statement and the congruence of the response component with the corresponding predicted outcome in the nursing care plans generated by graduate nursing students.

Definition of Terms

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

1. Quality of the response component of the nursing diagnosis statement--number of criteria met for the response component as measured by Items 5 through 8 on the Response Criteria component of the Ziegler Criteria for Evaluating the Quality of the Nursing Diagnosis Statement and the Predicted Outcomes of the Nursing Care Plan Instrument (Ziegler, Note 1). The higher the number, the higher the quality of the response component.

2. Congruence classification of the response and predicted outcomes--classified congruent or

incongruent based on the decision reached by at least two of three judges on Criteria number 13 of the Ziegler Criteria for Evaluating the Quality of the Nursing Diagnosis Statement and the Predicted Outcomes of the Nursing Care Plan Instrument (ZEQNP) Criteria Instrument.

3. Graduate nursing students--those students enrolled in the master's program who wrote the comprehensive examinations during the data collection period.

4. Quality of the nursing diagnosis statement--the number of nursing diagnosis criteria Items 1 through 12 met as measured by ZEQNP Criteria Instrument, based on the decision reached by at least two of three judges.

5. Quality of the predicted goal outcomes--the number of predicted goal outcome criteria met as measured by Items 14 through 16 on the ZEQNP Criteria Instrument based on the decision reached by at least two of three judges.

Limitations

This study had the following limitations:

1. The sample was not selected randomly.
2. The data were originally collected for another study and therefore were considered secondary data.

Summary

In nursing practice, nursing diagnosis serves to facilitate the delivery of individualized health care to the client. If nurses are to be proficient in the utilization of the nursing diagnosis, those characteristics of the response component of the nursing diagnosis statement which are associated with the generation of congruent predicted outcomes must be clarified. This study focused specifically on evaluating the association between the quality of the response component of the nursing diagnosis statement and the congruence of the response component of the nursing diagnosis statement and corresponding predicted outcome in the nursing care plan.

CHAPTER 2

REVIEW OF THE LITERATURE

The purpose of this chapter is to provide a review of literature in order to document the concept of nursing diagnosis, goal and structural definition of nursing diagnosis, and the role of nursing diagnoses and the nursing process. The review of literature includes identification of the role of nursing diagnosis and its relationship to the nursing process which is the foundation of nursing practice. It is theorized that communication of nursing diagnoses and predicted outcomes will contribute to improvement of the quality of care received by the patient and enhance nursing's autonomy and accountability.

Concept of Nursing Diagnosis

The term "concept" has been defined in various ways. Hardy (1975) stated that concepts of nursing diagnoses are labels describing the dimensions, attributes, or aspects of reality which interest the scientist. The concept of nursing diagnosis has been debated in professional literature for over

25 years (Henderson, 1978) and has undergone many changes since it was discussed in 1950.

Early conceptions focused on patient needs and then patient problems, but with the development of a scientific model for nursing practice--the nursing process (data collection, assessment, plan, intervention, and evaluation)--the use of nursing diagnoses has become a significant methodology for professional nurses. Fry (1953) was one of the first to document that the formulation and utilization of nursing diagnoses were vital to the planning and delivery of patient care. The actual identification and development of the concept of nursing diagnoses, however, did not begin formally until 1973, with the formation of the National Group for Classification of Nursing Diagnoses (Gordon, 1976).

According to Abdellah (1957), the concept of nursing diagnosis requires independent nursing judgment regarding a patient's condition which is amenable to nursing actions. Abdellah conducted a study to compare three methods for identifying overt and covert nursing problems in relation to the concept of nursing diagnosis. This author concluded that once a complete

list of recurring and persistent overt and covert patient problems are identified, a classification system of the problems would be necessary. Johnson (1961) concurred that independent judgment and activities were required of the professional nurse to formulate nursing diagnoses.

Chambers (1962), in addition, described nursing diagnosis as the investigation of data to determine the nature of a nursing problem and a course of action to take for solving the problem. The diagnostic process is comprised of observation, communication, testing, and literature review (Chambers, 1962).

Durand and Prince (1966) defined the concept of nursing diagnosis as a conclusion statement resulting from recognition of a pattern derived from nursing investigation of the patient. The nursing diagnosis concept involves determining information necessary to begin a plan of nursing care (Durand & Prince, 1966). The statement focuses on the patient's response to illness and reflects the progress of the patient.

Rothberg (1967) maintained that the concept of nursing diagnosis is essential to professional nursing because it ensures a focus on the individual, reveals

factors that influence the patient's progress, and results in a goal-directed plan of nursing care that can be evaluated. According to Rothberg, nursing diagnosis is an evaluation within the framework of current knowledge of the patient's condition and contains three elements--identification of individual problems (through assessment), establishment of goals, and selection of appropriate methods to direct the individual toward more positive health.

In a literature review regarding the critical problem in communicating the nursing diagnosis concept, Bloch (1974) discussed crucial terms in nursing. Bloch described nursing diagnosis as an identification of patient problems most frequently identified by nurses and problems which are amenable to some intervention which is available in the present or potential scope of legal nursing practice.

Gebbie and Lavin (1975) suggested that a nursing diagnosis is the product of assessment. Munding and Jauron (1975) broadened this definition when they concluded that nursing diagnosis is

The statement of a patient's response which is actually or potentially unhealthful and which nursing intervention can help change

in the direction of health. It should identify essential factors related to the unhealthy response. (p. 97)

Thus, determination of goals for the patient becomes evident for nursing intervention (Mundinger & Jauron, 1975).

The recognition of the concept of nursing diagnosis as a method which could systematically identify patient problems prompted other writers to examine the process. In 1975, Bircher described nursing diagnosis as a conclusion based upon observation and scientific knowledge. Nursing diagnosis was considered an independent function of the nurse (Bircher, 1975). Bircher identified 10 steps in an attempt to clarify the process of nursing diagnosis. Later, Gordon (1976) identified nursing diagnosis as a description of actual or potential health problems which nurses are capable of recognizing and licensed to treat. In addition, Gordon cited a four-step process for formulating nursing diagnoses. However, in her most recent book, Gordon (1982) included six components of the nursing process which include assessment, diagnosis, outcome projection, planning, intervention, and outcome evaluation.

Nursing diagnosis was viewed by Little and Carnevali (1976) as a concise, precise, neutral statement of patient response to a stressor or potential stressor in the health area and the identification of the area of impact. These authors stated that nursing diagnosis was not a concept label, but a perceived concept attainment as a part of nursing diagnosis. Further evaluation of their work showed that the authors were describing what constitutes a nursing diagnosis statement. Little and Carnevali identified the function of concepts in nursing diagnosis as an aid to directing observations and organizing data. Other authors (Yura & Walsh, 1978) also viewed the concept of nursing diagnosis as a deprivation of or alteration in meeting human needs. Soares (1978) utilized a conflict-in-needs framework. Campbell (1978), in a study of student diagnoses, defined the concept of nursing diagnosis as human responses and resource limitations with similar conditions that both physicians and nurses diagnose.

Gordon (1976) recognized the strategies of probabilistic concept attainment which were identified as deriving nursing diagnoses. Gordon's rationale for

concept attainment of nursing diagnosis is relevant to nursing practice because the nurse's responsibility for accurate diagnosis is now recognized both legally and professionally. This author stated that the nurse must assume responsibility for increased skill in diagnosis and educators must place emphasis on this skill.

To summarize, the concept of nursing diagnosis has been used by professional nurses to indicate a nursing problem, or need; an exercise in judgment by the nurse; a systematic process for assessment of patient problems; and the identification of health problems for which the professional nurse can legally plan treatment. However, as the conceptualization of nursing diagnosis becomes more evident in the literature, so do the variations in defining nursing diagnosis.

Goal and Structural Definition of Nursing Diagnosis

The structural definition serves to further clarify the concept of nursing diagnosis and to assist in the implementation of diagnosis in writing nursing care plans. There is no consensus in the nursing literature regarding the components of the nursing diagnostic statement.

Early in 1969 three major components were identified which have a significant relation to quality of nursing care (Goldin & Russell, 1969). These components include (a) the setting in which care is rendered, (b) the nursing process, and (c) patient outcome. However, there is little research information regarding the relation of these components. Very few studies link specific nursing diagnosis to a specific patient outcome.

This lack of research involving the major components of nursing diagnosis statements has increased the problems surrounding the measurement of quality nursing care. If patient predicted outcomes are being measured, assumptions will have to be made about the relationship of nursing diagnosis to the nursing process (Goldin & Russell, 1969). If the process is being measured, then assumptions have to be made about its relation to patient outcomes.

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Several years later, Mundinger and Jauron (1975) described the nursing diagnostic statement as consisting of two parts with the clauses joined together with the phrase "related to." The nursing diagnostic statement consists of two components: (a) the behavioral response of the patient to potential or actual health problem and (b) the etiology or actual cause of the problem (Mundinger & Jauron, 1975).

The response component, the unhealthful human response, is the patient's condition that warrants changing. The causal factors or etiology component identify the related factors where nursing intervention can change the patient's response (Mundinger & Jauron, 1975).

Gordon and Sweeney (1979) affirmed that accurate identification of both components of the nursing diagnosis is essential to the process of carrying out the remaining steps in the nursing process. Gordon (1976) proposed three essential components of nursing

diagnosis which include the health problem (P), the etiology (E), and the defining cluster of signs and symptoms (S). According to Gordon (1982), diagnoses, with their cluster of signs and symptoms, eventually will be standardized and published, leading to a classification system.

Characteristics and guidelines have been established by various authors in order to avoid potential problems in formulating nursing diagnoses. Four necessary characteristic criteria for each clause of the nursing diagnosis statement were identified by Mundinger (1980). According to Mundinger, for a statement to be defined as a nursing diagnosis, the components should be altered as a result of nursing intervention.

Ziegler (Note 1) proposed 16 criteria to aid in the formulation and evaluation of nursing diagnosis statements and the nursing process. The criteria established guidelines for both components of the nursing diagnosis statement, stated both components must be changeable, and declared that the response component must be concrete enough to generate observable, measurable, and desired outcomes.

In the review of literature, various authors have concluded that the nursing diagnosis is derived from the data collected: the nursing history and the physical findings indicating deviations from normal which interfere with functioning (Moritz, 1982). The components of the nursing diagnosis as accepted by the National Conference Group (cited in Moritz, 1982) are: (a) a brief statement of the problem, (b) etiology or the factors related to its development, and (c) the signs and symptoms which constitute its defining characteristics. However, in actual practice, the "accepted" list of diagnoses is not in this format. A goal for those working on nursing diagnoses would be to identify the critical defining characteristics; i.e., the defining characteristics which nursing must agree upon which must be present in order for the nursing diagnoses to be made (Moritz, 1982).

Gordon (1982) concluded that the goal sets the direction to alleviate the concern indicated by the nursing diagnosis and is a statement describing a broad or abstract intent, state, or condition that reflects an outcome. If this diagnosis reflects specific concerns of the client, then one goal is

needed per diagnosis. If the diagnosis is stated in broad terms, it may necessitate more than one goal (Gordon, 1982).

As indicated by Gordon (1982) and Mundinger (1980), goals reflect health restoration, maintenance, or promotion. Health restoration goals are indicated when client's internal or external resources are not adequate or diminished. Health maintenance goals are indicated when the client should increase the existing internal or external resources or continue using those resources. Gordon (1982) and Mundinger (1980) concluded that health promotion goals reflect a desire to function at a higher level of health and go beyond just maintaining health.

Historically, nursing care plans have always had goals, the nurses directed their actions toward these goals. These goals or predicted outcomes have often been vague and nonspecific (Gordon, 1982). However, by using nursing diagnoses, the predicted outcome should be a precise statement of the result the nurse hopes to reach (Mortiz, 1982).

The critical aspect of stating a predicted outcome is that it be stated in measurable terms (Gordon, 1982).

It can be assessed and measured objectively. One nurse can determine whether the objective has been reached. When outcomes have been stated, it is possible to design an individualized plan of care, knowing the etiology of the diagnosis (Moritz, 1982). In evaluating the effectiveness of the nursing care plan, successful accomplishment of the predicted outcome is the true measure, not whether or not the activities within the care plan have been completed (Gordon, 1982).

Role of Nursing Diagnosis and the Nursing Process

Zimmerman and Cohrke (1970) proposed a systematic approach to planning care based on a scientific foundation, the nursing process--assessment, goal setting and planning, implementation, and evaluation. It was their belief that the implementation of the nursing process promotes greater satisfaction for nursing personnel on all levels. A major strength identified is the goal-directedness of nursing care, and the fact that the nurse can use measurable criteria to demonstrate a contribution to the patient's well-being (Zimmerman & Cohrke, 1970).

Nursing diagnosis has been identified by several researchers as an essential component of the nursing process and is the basis for planning, intervention, and evaluation of the patient's health concerns (Carrieri & Stizman, 1971). However, nursing diagnosis is considered by many nurses as the most controversial and the weakest link in the nursing process (Aspinall, 1976). Aspinall submitted that this weakest link is the result of the nurses' lack of knowledge of the criteria necessary for the development and utilization of the nursing diagnosis within the nursing process.

The importance of the role of nursing diagnosis is indicated by the definition of nursing adopted by the American Nurses' Association in 1976 (cited in Kim, 1982) and further refined in 1980 to read "nursing is the diagnosis and treatment of human responses to actual or potential health problems" (p. 121). Nursing diagnoses provide a common language which enhances communication within the nursing profession, among peers and other health professionals, improves continuity of care, and increases accountability to the client (Gordon & Sweeney, 1979).

According to Gordon and Sweeney, nursing diagnoses can help formulate expected outcomes which guide quality care.

Yura and Walsh (1973) stated that the nursing process is the foundation of nursing practice, consisting of a systematic method of problem solving which is planned, patient-centered, and goal-directed. The nursing process provides the guidelines for developing and analyzing the patient's problems, determining how to solve the problems, carrying out a plan of action, and evaluating the effectiveness of that plan (Yura & Walsh, 1978). The process itself is a series of interrelated and interdependent activities that are conducive to identifiable purposes.

The nursing process utilized by Yura and Walsh (1973, 1978) consisted of four phases: (a) assessing, (b) planning, (c) implementing, and (d) evaluating. Yura and Walsh (1973) indicated that nursing diagnosis linked the assessment phase to the planning phase of the nursing process and that this diagnosis provided direction to the remainder of the nursing process.

The need for further clarification of the role of nursing diagnosis and the nursing process became

evident as more nurses began to operationalize the process. Aspinall (1976), Mundinger and Jauron (1975), and Roy (1975) identified nursing diagnosis as a separate step within the nursing process and developed a five step process.

Another variation of the nursing process developed by Mundinger (1980) consisted of six steps. The nursing diagnosis is the foundation of the process for this variation (Mundinger, 1980). According to Gordon (1982), having the six components of the nursing process spelled out encourages deliberation and organization for individualized care planning.

Resler (1982) identified several inconsistencies in the guidelines for formulating nursing diagnosis statements within the nursing process. Resler declared that the development of nursing diagnosis as a separate setup in the nursing process has contributed to the lack of uniformity among nurses in formulating nursing diagnosis statements.

Nursing Diagnosis Status and Research Studies

The desire and need to articulate more clearly what nursing has to offer to specific clients' problems

prompted the inception of the National Conference on Classification of Nursing Diagnoses (cited in Gebbie & Lavin, 1975) to initiate the process of preparing an organized, logical, comprehensive system for classifying health problems or health states diagnosed by nurses and treated by means of nursing interventions. It was the conviction of these participants in the conference that without such a system, nurses would continue to experience difficulty in educating nurses, designing and performing research, and communicating nursing diagnoses and care within the nursing profession. If nursing is to survive the current turmoil in health care delivery, it must do all of these effectively (Moritz, 1982).

In the development of a system for the classification of nursing diagnoses, consideration must be given concerning its application and possible effects on the practice of nursing. The most significant fact should be the provision of nursing care that focuses on a patient's problems and applies diagnosis--specific nursing interventions and predicted goals (Gebbie & Lavin, 1975). This increasing specificity of goals and actions should increase the effectiveness of the

individualized nursing care. Evaluation of nursing practice then can be facilitated because there would be a framework for testing the effects of an action for a specific diagnosis for which it was prescribed (Gebbie & Lavin, 1975). In addition, the use of a nursing diagnosis system would facilitate the review and evaluation of any patient's overall health care in any setting (Gebbie & Lavin, 1975).

A nursing diagnostic classification system should lead to an accepted vocabulary which can be utilized by all professional nurses (Gordon, 1982). Nursing educators share in the task for communication of knowledge relevant to nursing and if the diagnostic classification system becomes obvious, the typology of diagnoses becomes the content of the curriculum (Gebbie & Lavin, 1975).

If nursing education is to communicate nursing knowledge, the most relevant content to be incorporated in the curriculum is nursing diagnoses (Stevens, 1980). Nursing, however, has been emphasizing nursing diagnosis courses in the curriculum but sometimes without sufficient background for understanding the basic criteria (Stevens, 1980). Definitions of nursing

diagnosis and a classification system could lead to a greater consistency. Although in order to use diagnoses, nurses have to perceive autonomy and accountability as their professional characteristics to be successful (Stevens, 1980).

Today it would be much easier if clinical activities were consistently organized in terms of the clinical problems of clients. Care, in-service education, reports, and quality assurance could be based on nursing diagnoses, and evaluation of nurses could emphasize competency in the nursing process (Chaska, 1978). Gordon (1982) concluded that this would provide consistency in nursing practice and facilitate implementation of the nursing process and its component--nursing diagnosis.

Educators have begun to design curricula around nursing diagnosis. Moritz (1982) indicated that clinical trials using nursing diagnosis in a variety of settings are increasing and providing more relevant terminologies. The diagnostic labels identified through this process are building blocks for the classification system. Critical evaluation of this process is vital for articulating the language of nursing diagnoses

and refining the criteria for accepting nursing diagnoses. Although professional nursing education generally espouses the nursing process as basic to practice, through literature review there is heated controversy regarding the use of the concept of nursing diagnoses in that process (Moritz, 1982).

Development and testing of research designs for identification and utilization of nursing diagnosis and outcomes are critical to nursing. The American Nurses' Association Standards of Practice (cited in Bullough, 1978) which require diagnoses, and the Nurse Practice Acts which mandate nursing diagnoses, make it imperative that research in this area be instigated. However, nursing research regarding the competency in utilization of nursing diagnosis following implementation of specific criteria of nursing diagnosis in educational settings has been limited. Bullough's (1978) findings suggested educational levels and experience are factors which influence a nurse's ability in making a diagnosis.

Davis (1972) reported on clinical expertise as a function of educational preparation. The sample of Davis' study included baccalaureate nurses and clinical

nurse specialists who viewed five film sequences developed by Verhonick, Nichols, Glor, and McCarthy (1968). Their responses were analyzed. The clinical specialists made more relevant observations, suggested more relevant actions, and provided more appropriate rationale. A negative correlation, however, was reported between the years of experience and actions taken. This would imply that the quality and quantity of nursing declines with increasing years of experience.

Another study by Davis (1974) replicated the preceding study and consisted of a sample of diploma, baccalaureate, and master's prepared nurses. The findings from this study also indicated quality and quantity of nursing care was increasingly superior from diploma level, to baccalaureate level, to master's level with each group improving over the preceding group. Without continuing education the quality and quantity of nursing care declined in all groups identified in the study.

Grier (1976) recognized decision-making as an important aspect of the nursing process which is instigated with inference regarding a patient's needs. Grier surmised that inference is concept attainment. Variables

identified in nursing decision-making involved nursing actions, the outcome of those actions, and patient goal attainment which the actions would accomplish (Grier, 1976). The ability of decision-making by 21 nurses was evaluated. The analysis reported in this study showed the majority of the decisions were valid. The chosen actions were shown desirable for goal achievement and consistent with the nurse's knowledge and value with the probable outcome. Grier concluded that decision theory is valuable to the nursing process and to nursing practice.

Another study reported by Aspinall (1979) involved 30 triads of nurses matched for educational background, experience, and previous performance in problem identification to determine if the use of a decision tree would improve differential diagnostic accuracy in making a nursing diagnosis. According to Aspinall, the nurse would require specific training and assistance to accomplish this activity.

The nurses were randomly assigned to one of three groups, two control groups and one experimental group. Each group in the study was given the written case study about a patient with signs of impairment in

cognitive function after surgery for ruptured appendix with an episode of gastric bleeding. Group A received only the written case study; Group B received the case study and a list of 18 possible diagnoses; and Group C received the case study, the list of 18 possible diagnoses, and a decision tree for each of the possible diagnoses.

The mean number of correct diagnoses given by Group A was 1.667, Group B averaged 2.567, Group C averaged 3.8. Differences in the number of correct diagnoses among all groups were found to be significant ($p < .001$) in the predicted direction (e.g., Group C had more correct diagnoses than Group B, and Group B had more correct diagnoses than Group A).

Educational backgrounds were evaluated in relation to the responses made by the nurses in the study. The mean number of correct diagnoses for diploma nurses who used the case study and list of 18 possible diagnoses was lower than the other two groups. However, diploma nurses made the most improvement using the decision tree and obtained a higher mean score than either the baccalaureate or associate degree group.

In relation to the responses to the study, the length of nursing experience was evaluated. Those who had 10 years or more experience had a lower mean number of correct diagnoses when using the case study only and demonstrated the most improvement with the decision tree. Nurses with 2 years experience or less scored the highest using the case study alone and doubled their number of correct diagnoses with the decision tree. Aspinall concluded that the nurses' reliance on their experience and confidence in self-knowledge made it difficult for them to use the decision tree to their advantage. A correct diagnosis, however, was identified as medical, not nursing, in nature.

Aspinall (1979) concluded that nurses need specific assistance to become proficient and accurate in diagnosing. This author believed that utilization of the decision trees can guide nurses and provide one method for nurses to improve their accuracy in the diagnostic process, but Aspinall accepted mostly medical diagnoses as the diagnoses.

As progress is made in the identification, classification, and implementation of nursing diagnosis, attention must be directed to assessing the competency

in the utilization of the components of the nursing diagnoses and the goals. To facilitate communication of these components, nurses are following a more universal language to communicate their work which has been agreed upon by most professional nurses involved (Moritz, 1982). In providing patient care, the universal format is the nursing process, which is communicated in a specific language agreed upon by several disciplines within the health system (Schantz & Lindeman, 1982).

The literature lacks research studies on the utilization of nursing diagnoses and its components, especially the degree to which nurses are educated to formulate nursing diagnoses. There is little evidence of evaluation or comparison of any outcomes. However, it would appear that since there are specific courses on nursing diagnosis preparing graduate nurses, some outcomes would be similar (DeBack, 1981) and, therefore, these nurses who received similar education would utilize the concept of nursing diagnoses and the components in writing nursing diagnosis statements.

DeBack (1981) conducted a research study to determine the relationship between senior nursing students'

ability to formulate nursing diagnoses and the curriculum model. This study focused on the diagnostic ability of senior nursing students to formulate nursing diagnosis as a part of the nursing process which is an assumed outcome of graduate education. To evaluate this ability, nursing care plans of senior nursing students in baccalaureate schools were analyzed.

The major hypothesis proposed was that curriculum models (specifically systems model curricula) will predict the relative ability of senior nursing students to formulate nursing diagnoses. Two secondary hypotheses were developed: (a) employment of student-involved teaching strategies will be associated with greater ability to formulate nursing diagnoses by senior nursing students, and (b) employment of essay-type assessment methods rather than the objective-type methods will be associated with greater ability to formulate nursing diagnoses by senior nursing students.

The sample for the study consisted of 200 nursing care plans generated by senior baccalaureate nursing students which represented four curricular models. An analysis of the nursing care plans focused on the nursing

diagnosis which is a phase of the nursing process. Previously established criteria, which had been derived from the definition of nursing diagnosis developed by the National Conference on the Classification of Nursing Diagnosis (cited in DeBack, 1981), were used to determine the ability of these students to formulate a nursing diagnosis. The method of scoring included the total number of criteria and the specific criteria met. This method of scoring permitted DeBack to determine the areas of strengths and deficits in students' formulation of nursing diagnoses. A frequency distribution table was used to present the data and summarize the number of times each one of the three criteria was met in nursing diagnoses formulation.

The first hypothesis was tested using an analysis of variance on the data. Findings suggested curriculum models are not differentiating variables when measured by diagnoses formulation ability. The nursing school tested written curricula models which proved to be significant. This would imply that real differences exist among schools of nursing. According to findings of DeBack, the real differences in schools of nursing exist in the effectiveness in which nursing diagnosis is taught.

Hypotheses 2 and 3 were tested using a correlation matrix. No significant correlation was identified between student-involved teaching strategies and formulating nursing diagnoses criteria. The two null hypotheses failed to be rejected.

According to DeBack's study, the ability to formulate nursing diagnoses is not a demonstrated competence of senior nursing students. This may indicate that the level of theory development involving nursing diagnoses and the extent nursing diagnoses are used, taught, and understood varies due to the nursing models which baccalaureate nursing curricula utilize in their programs. The data from DeBack's study indicated no significant relationship between the types of curriculum models and students' ability to formulate nursing diagnoses.

Results of DeBack's study indicated a pervasive deficiency on the part of nursing students to make diagnoses. DeBack concluded that professors of nursing, responsible for teaching and reinforcing the use of the nursing process, should teach nursing diagnoses in a developmental way utilizing each step of the nursing process. The problem-identification step of the

nursing process is the nursing diagnosis which is the pivotal point of nursing intervention, the major focus of client concern, and it becomes, at the evaluation phase, the criterion to assess effectiveness of nursing intervention (DeBack, 1981).

Since DeBack's study demonstrated a deficiency in the ability of nurses to formulate nursing diagnoses, this raises educational outcome questions. There are few studies in literature correlating teaching strategies to measurable outcomes. Dubin and Taneggia (1968) reported no measurable difference in their study of methods of college instruction when evaluated by performance of students on final examinations. Teaching strategy variations do not apparently affect the quality of students' performance when evaluated by ability to formulate nursing diagnoses (Dubin & Taneggia, 1968):

Ziegler (in press) conducted a study to determine to what extent nursing diagnosis statements met pre-established criteria. The criteria for evaluation was generated by Ziegler (Note 2) which identified characteristics recorded in nursing literature indicating nursing diagnosis as the pivotal point for the

generation of the last three phases of the nursing process. If the remaining phases of the nursing process were to be dependent on the nursing diagnosis statement, these characteristics were considered essential.

The sample consisted of 90 graduate nursing students enrolled in one university in clinical courses. The data consisted of 168 nursing diagnosis statements which had been extrapolated from clinical assignments by the investigator and a research assistant. The nursing diagnosis statements were evaluated according to 14 criteria by Ziegler (in press) and a research assistant. Each worked independently using the criteria to evaluate each diagnosis. Following evaluation, a consensus regarding a composite rating for each diagnosis was reached by discussion if disagreement arose.

Of the nursing diagnosis statements collected, only 55% could be evaluated according to all criteria. Only 6% met all the evaluation criteria. Of the 168 nursing diagnosis statements collected, 45% could not be evaluated according to the 14 criteria because of structural deficiencies within the form of the nursing

diagnoses. The research findings showed that 79% of the sample experienced difficulty with the etiology component which was not concise enough to indicate specific nursing interventions.

The nursing diagnosis statements generated by this sample, according to Ziegler (in press) did not contain the characteristics necessary for basing the remaining steps of the nursing process on the nursing diagnosis statement. Ziegler concluded that the diagnoses did not facilitate the goals of individualized care, autonomy, or accountability of nursing practice. Nurses must face the incongruities between the stated nursing diagnosis and goals--incongruities that cannot exist if goal attainments are used to validate nursing diagnoses.

A number of issues has been identified which needs to be resolved in the current efforts to define the concept of nursing diagnosis and the goal and structural definitions of nursing diagnosis, the role of nursing diagnosis and the nursing process, and problems with implementation of nursing diagnosis. Some issues relate to the nurses' concept of their role, others to the development of nursing's clinical

science. Presently, the current classification system of nursing diagnoses consists of a set of defined, and some ill-defined, diagnoses that nurses make in practice. During the next 10 years greater progress should be made because of the commitment nurses have to solving the conceptual issues, implementing nursing diagnosis in educational settings, and studying its usefulness in practice (Gordon, 1982).

In the review of literature, the practice of nursing implies responsibility and accountability for one's own actions and activities. Research involving nursing diagnosis can promote nursing theory and improve nursing practice. Nursing's survival depends on truly professional practice and its documentation.

Summary

Chapter 2 has presented a review of literature pertinent to the concept of nursing diagnosis, goal and structural definitions of nursing diagnosis; the role of nursing diagnosis and the nursing process; and nursing diagnosis status and research studies. Since the nursing process is considered the methodology of clinical nursing practice, the identification of the role of nursing diagnosis and its relationships to the

remainder of the nursing process were researched.

The research findings added to the understanding of the impact of this topic on the future of nursing.

Nursing diagnosis as an entity has been discussed for many years, however, consensus does not exist in the nursing profession regarding the components of the nursing diagnosis statement and the evaluation criteria. Further research suggests that major issues in nursing diagnosis today are related to the fact that nurses use vague terms and are unsure of the essential necessary criteria for writing nursing diagnoses. In general, there is a lack of clarity throughout the profession about the concept of nursing diagnosis (Bircher, 1982) and there is need for further identification, standardization, and classification of nursing diagnoses.

CHAPTER 3

PROCEDURE FOR COLLECTION AND TREATMENT OF DATA

A descriptive correlational study with absolute evaluation was the design used to conduct this research. The primary problem of this study was to determine if there was an association between the quality of the response component of the nursing diagnosis statement and the congruence of the response component with the predicted outcomes. Polit and Hungler (1978) stated that the purpose of a descriptive study was to identify and describe phenomena under study. The purpose of correlational research is to identify the direction and estimate the magnitude of the association between two variables (Fox, 1976). Absolute evaluation is the process of assessing the outcomes of a problem relative to established criteria (Polit & Hungler, 1978).

Setting

The setting for this study was a university in the Southwestern United States and composed of multiple

campuses which offer undergraduate and graduate degree programs in nursing. The study was conducted at a large metropolitan campus of the university.

Population and Sample

The target population of data for this research study was comprised of nursing care plans generated by graduate level nursing students while taking final comprehensive examinations. The accessible population of data was nursing care plans written during comprehensive examination testing the summer and fall of 1982. The accessible sample of data existed in the form of secondary data collected on Data Format Sheets for a larger study. The Data Format Sheets contained information extrapolated from nursing care plans. The Data Format Sheets were completed by the investigator and a research assistant for the larger study.

The nonprobability convenience sample consisted of all the nursing diagnosis statements and predicted client outcomes recorded on Data Format Sheets. The sample consisted of 54 Data Format Sheets.

Protection of Human Subjects

Written permission to conduct this study was obtained from Texas Woman University (Appendix A) and from the graduate school (Appendix B). Anonymity existed because no subjects' names were known. No human subjects were put at risk. The research involved the study of existing data only.

Instrument

One instrument was utilized in this study which was developed by Ziegler (Note 1), The Ziegler Criteria for Evaluating the Quality of the Nursing Diagnosis Statement and the Predicted Outcomes of the Nursing Care Plan (Appendix C). The criteria are considered necessary characteristics of the nursing diagnosis statement if the last three steps of the nursing process are to be based on the nursing diagnosis statement. This instrument consists of 16 criteria items which were used to evaluate the general quality of nursing diagnosis statements, the general quality of the response component of the nursing diagnosis statement, and the quality of predicted outcomes.

The general criteria for the nursing diagnosis statement consists of Items 1-4 which refer to the structure of both components of the nursing diagnosis statement. Criteria 5-8 refers to the response component criteria; Criteria 9-12 refers to the etiology component; Criteria 13-16 refers to the nursing care plan which addresses the criteria necessary for the predicted outcome evaluation.

For several years the instrument has been used and modified for content validity by the faculty who teach nursing diagnosis at Texas Woman's University. Content validity refers to the extent to which the data gathering tool reflects the factors under study (Treece & Treece, 1977). The content validity has been ascertained by utilization of this instrument by this qualified group who have estimated validity on the basis of their knowledge and experience.

The interrater reliability for the etiology component criteria items was reported by Gartland (1982). The reliability coefficient established for the etiology component criteria was .83. No other reliability has been reported for the remaining criteria contained in this instrument. This interrater

reliability was computed and is reported as part of the present study.

Parts of this instrument were used to measure the variables in the present study. The quality of the response component of the nursing diagnosis statement was measured by the number of criteria met for the response component as identified by criteria items numbered 5-8. Three judges independently determined if each of the criteria were met by each of the response components. The rating in which at least two of three judges agreed were utilized to determine the quality score for each response component.

The congruence of the predicted outcome was classified congruent or incongruent based on the agreement reached by at least two of three judges on the criterion numbered 13 of the instrument by Ziegler (Note 1) that the predicted outcome from a care plan reflects the response component of the nursing diagnosis statement.

The quality of the nursing diagnosis statement was measured by the number of criteria items met for the general criteria, response component criteria, and etiology component criteria as identified in criteria items numbered 1-12 of the instrument by Ziegler.

The rating in which two of three judges agreed was utilized to obtain the quality score for each of these criteria.

Written instructions directing the judges in the method for responding to the tool were provided (Appendix D). A definition of nursing diagnosis, response component, etiology component, and the outcome were presented for the purpose of clarity.

Field testing of this instrument prior to the pilot study was conducted in the following manner. Field testing was performed by three judges who had completed a similar course in nursing diagnosis. The test consisted of five sets of nursing diagnosis statements and corresponding predicted outcomes. Each judge on the panel was given a copy of the instrument, a direction sheet, an answer sheet, definitions, and questionnaire. Based on similar raw data shown in Appendix E for the present study, the judges were requested to evaluate the nursing diagnosis statement and the corresponding predicted outcomes using the Ziegler instrument and the answer sheet provided. The answer sheet listed each nursing diagnosis statement, the predicted outcomes, and 16 columns which

were numbered to correspond with the criteria on the instrument sheet. Each judge evaluated each set of nursing diagnosis statements and predicted outcomes to determine whether the predicted outcomes for each criteria were met. If the criteria was met, an "X" was placed in the proper "Yes" column on the answer sheet. If the criteria was not met, an "X" was placed in the proper "No" column on the answer sheet. These directions applied for all criteria except #1 and #13. If Criteria #1 was not met, classify A, B, or C in Column 1. If Criteria #13 was not met, classify A or B in Column 13.

After completion of this field test, the judges were requested to identify any problems encountered in performing this task. The judges identified no problem with the methodology and no changes were made.

Data Collection

This procedure for data collection consisted of three steps. Step 1 and Step 3 were performed by the researcher. Step 2 was performed by a panel of judges.

Step 1

The researcher obtained from the Data Format Sheets (Appendix F) the nursing diagnosis statements and the corresponding predicted goal outcomes. The researcher transcribed the nursing diagnosis statement and the corresponding predicted outcomes onto a Raw Data Sheet (Table 1).

Table 1
Nursing Diagnosis and Predicted Outcome
Data Sheet

Nursing Diagnosis Statement	Predicted Outcomes
1.	1.
2.	2.
3.	3.
.	.
.	.
.	.
.	.
53.	53.
54.	54.

Step 2

A panel of three judges performed one task in this step. Each member of the panel of judges performed the designated task which involved the 54 nursing diagnosis statements and the corresponding predicted outcomes listed in Table 1. The panel was comprised of three graduate master's level nursing students who had (a) completed the core courses of the master's nursing program and (b) had completed successfully the final comprehensive examinations.

Each member of the panel performed the task independently during this session. The researcher and the panel of three judges met together to complete Step 2. Data collection began when each judge on the panel completed Step 2 independently of each of the other two judges. The panel of three judges performed the following task in Step 2.

The task included evaluating each nursing diagnosis statement and the corresponding predicted outcomes using the Ziegler instrument. The researcher distributed the following items to each judge on the panel: (a) the direction sheet and definition of terms and (b) the answer sheet for this task (Appendix G). Each

judge was given the directions for this task and was instructed to read the directions. Each judge worked independently and evaluated each of the numbered sets of nursing diagnosis statements and predicted outcomes using the 16 evaluation criteria items listed on the instrument. Each judge evaluated each diagnosis statement and predicted outcome sets and identified if the necessary criteria listed on the instrument were met. If the criteria were met, an "X" was placed in the proper "Yes" column on the answer sheet. If the criteria was not met, an "X" was placed on the proper "No" column on the answer sheet. These directions applied for all criteria except #1 and #13. The judges were informed how to classify Criteria #1 and #13. If Criteria #1 was not met, it was classified as to why by checking A, B, or C in column 1. If Criteria #13 was not met, it was indicated why by checking A or B in column 13.

Following completion of this task, the panel of three judges returned all materials utilized in performing this task to the researcher. This completed the panel of judges' role with the data collection.

Step 3

The third step of data collection was performed by the researcher. Since all three judges evaluated each of the nursing diagnosis statements and predicted outcomes for congruence and quality, it was necessary to use a composite table to classify all the answers. Table A, Frequency of Judge Ratings (Appendix H) was used to record the evaluation of the criteria which each judge had selected and recorded on their answer sheet.

Using the three answer sheets which the panel of judges completed in Step 2, determination of the criteria classification of each set was identified and each answer was recorded on Table B (Appendix H) under the heading "Composite Frequency of Judge Ratings" for the 16 listed criteria items. Determination of the composite classification criteria was that criteria category which was selected by at least two of three judges. The researcher then totaled the nursing diagnosis criteria met for Items 1-12 in each. Determination of the composite criteria classification was identified when the criteria met was marked "Yes" by at least two of the three judges. The researcher

then totaled the response component criteria met for Item 5-8 in each. Determination of the composite criteria classification for the response component was identified when the criteria met was marked "Yes" by at least two of the three judges. The researcher then totaled the predicted goal outcomes criteria met for Items 13-16 in each set. Determination of the composite criteria met for the predicted goal outcomes was identified when the criteria was marked "Yes" by at least two of three judges.

The researcher then classified the response component of the nursing diagnosis statement and predicted outcome identified in each set as to whether they were congruent or incongruent. The congruency on incongruency was determined by using the data recorded on Table B (Appendix H). Since three judges evaluated the criteria for the predicted goal outcomes listed in Item 13, the agreement marked by at least two of three judges determined the congruence classification.

Since three judges evaluated each response component of the nursing diagnosis statement according to four criteria, it was necessary to designate a composite score for each evaluated criteria. The

composite score was the sum of the scores assigned by at least two of the three judges (Table 2).

Table 3 was used to determine the total number of criteria met by each response component. Hypothetical data have been entered into Table 3 for the purpose of clarification.

Treatment of Data

The data collected were analyzed and reported using descriptive statistics. The level of agreement among the panel of judges made regarding the quality of the response components and the goals were reported using descriptive statistics. Table 4 was used to report data regarding the level of the agreement among the judges. The number and percentages of the response and goal sets classified congruent or incongruent were calculated and reported.

The number of response criteria met by the response and goal sets classified congruent and incongruent were reported using descriptive statistics as listed in Table 5. The frequency and percentage of the 16 evaluation criteria met were reported for the 54 diagnosis statements on Table B (Appendix H).

Table 2

Summary Table of Frequency of Judge Ratings for
Criteria Number 13, Composite Score,
and Congruence Classification

Set Numbers	Judge 1	Judge 2	Judge 3	Composite Score	Congruence	Incongruence
1.						
2.						
3.						
.						
.						
53.						
54.						

Table 2

Summary Table of Frequency of Judge Ratings for
Criteria Number 13, Composite Score,
and Congruence Classification

Set Numbers	Judge 1	Judge 2	Judge 3	Composite Score	Congruence	Incongruence
1.						
2.						
3.						
.						
.						
53.						
54.						

Table 3

Summary Table of Judges' Evaluation of the Response Component
Items by Criteria Number, Composite Score, and
Total Number of Criteria Met by Each

Response Component Set No.	Criteria	Judge 1	Judge 2	Judge 3	Composite Score	Total Criteria Met
1	1	X	X	O	X	2
	2	O	O	O	O	
	3	O	X	O	O	
	4	X	X	X	X	
54	1					
	2					
	3					
	4					

Table 4

Summary Table of the Frequency of the Response Components
and Outcome Goals Classified into the Same
Category by Number of Judges

Component Classified	Number of Judges in Agreement		
	3	2	0
Response Component			
Goal Component			

Table 5

Summary Table of the Number of Response Evaluation
Criteria Met By Congruence Classification
Of the Response and Goal Set

Congruence Category	Number of Response Criteria Met					Total
	0	1	2	3	4	
Congruent	0	1	1	6	25	33
Incongruent	0	0	0	2	19	21
Total	0	1	1	8	44	54

It was hypothesized that: There is a positive association between the quality of the response component of the nursing diagnosis statement and the congruence of the response component with the predicted outcome in the nursing care plans. The hypothesis was tested by computing a chi-square analysis on the data illustrated in Table 5. The alpha level selected was .05. If the chi-square analysis had been significant, then a contingency coefficient would have been computed to determine the strength of this relationship.

CHAPTER 4

ANALYSIS OF DATA

A descriptive correlational study was conducted to determine the association between the quality of the response component of the nursing diagnosis statement and the congruence of the response component with the corresponding predicted outcome in nursing care plans. This chapter presents the results of the analysis of the data.

Description of the Sample

The nonprobability convenience sample was obtained from an accessible population of 54 Data Format sheets collected for a larger study which contained nursing care plans generated by graduate level nursing students. The accessible population existed in the form of secondary data extrapolated from the nursing care plans written for final comprehensive examinations by graduate master's level students.

Findings

The findings of the study are presented under seven major subheadings:

1. Interrater reliability of the Ziegler Instrument

- (a) the total instrument
- (b) the response criteria component
- (c) the goal (predicted outcomes) criteria

component

2. Quality of the nursing diagnosis statements

- (a) number of nursing diagnosis statement criteria met
- (b) number of sample nursing diagnosis statements meeting each of the criteria

3. Quality of the response component of the nursing diagnosis statement

- (a) number of response component criteria met
- (b) number of sample response components meeting each of the criteria

4. Quality of the predicted outcomes

- (a) number of predicted outcome criteria met
- (b) number of sample predicted outcomes meeting each of the criteria.

5. Congruence classification of the response and goal (predicted outcome) sets

6. Test of the hypothesis
7. Additional findings

Interrater Reliability of the
Ziegler Instrument

The number of judges in agreement on the classification of the 16 criteria for the 54 nursing diagnosis statements and goals (predicted outcomes) was computed for the entire instrument. The interrater reliability was estimated by computing reliability as a function of agreements utilizing the following formula:

$$\frac{\text{number of agreements}}{\text{number of agreements} + \text{disagreements}}$$

(Polit & Hungler, 1978, p. 431)

The reliability coefficient, .62, was computed as a measure of strength of the relationship among the judges' ratings for the entire instrument. A reliability coefficient of .63 was computed for the response quality of the instrument; a reliability coefficient of .67 was computed for outcome quality; and a reliability coefficient of .61 was computed for the quality of the diagnosis statement.

Quality of the Nursing Diagnosis Statements

The quality of the sample's nursing diagnosis statements is reported according to the (a) total number of criteria met and (b) the number of response components meeting each of the criteria.

Number of nursing diagnosis statements meeting each of the criteria. The total number of nursing diagnosis criteria met is illustrated in Table 6. Of the 54 nursing diagnosis statements, 40 diagnoses met 12 criteria, 6 diagnoses met 11 criteria, 5 diagnoses met 10 criteria, 2 diagnoses met 9 criteria, and 1 diagnosis met 7 criteria. Therefore, since 74% met 12 criteria, the quality of the nursing diagnosis statements was good.

The number of nursing diagnosis statements meeting each of the criteria. The quality of the nursing diagnosis statement was determined by the number of nursing diagnosis criteria met for Criteria 1-12 of the Ziegler instrument. The higher the number of criteria met, the greater the quality of the nursing diagnosis statement. Table 7 illustrates the total number of nursing diagnoses.

Table 6

Frequency and Percentage of Nursing Diagnosis Statements
Meeting the Ziegler Instrument Criteria

Number of Criteria Met	Nursing Diagnosis Statement	
	Frequency	Percentage
12	40	74.0
11	6	11.1
10	5	9.25
9	2	3.7
8	0	0.0
7	<u>1</u>	<u>1.85</u>
Total	54	100.0

n = 54.

Table 7
Nursing Diagnosis Statements Meeting Each of the Ziegler
Instrument Nursing Diagnosis Criteria

General Name	Number of Diagnosis Statement Frequency	Percentage Meeting Criteria
General		
1. Both Components	53	98
2. Related to phrase	51	94
3. Sequence	53	98
4. Asymmetrical	53	98
Response		
5. Unhealthy	49	91
6. Only one	53	98
7. Modifiable	54	100
8. Concrete	47	87
Etiology		
9. Only one	53	98
10. Changeable	44	81
11. Independent function	38	70
12. Concrete	29	54

n = 54.

Of the 54 nursing diagnosis statements, 53 nursing diagnoses (98%) met Criterion 1, 51 nursing diagnoses (94%) met Criterion 2, 53 nursing diagnoses (98%) met Criterion 3, 53 nursing diagnoses (98%) met Criterion 4, 9 nursing diagnoses (91%) met Criterion 5, 53 nursing diagnoses (98%) met Criterion 6, 54 nursing diagnoses (100%) met Criterion 7, 47 nursing diagnoses (87%) met Criterion 8, 53 nursing diagnoses (98%) met Criterion 9, 44 nursing diagnoses (81%) met Criterion 10, 38 nursing diagnoses (70%) met Criterion 11, and 29 nursing diagnoses (54%) met Criterion 12.

Quality of the Response Component of the Nursing Diagnosis Statement

The quality of the response component of the nursing diagnosis statement is reported according to the (a) total number of response criteria met for the sample and (b) the number of response components meeting each of the response criteria.

Number of response criteria met. Table 8 illustrates by rank order frequency and percentage the total number of response criteria met by the 54 response components evaluated. Of the 54 response components evaluated, 81.4% (44) of the diagnoses met all 4

Table 8

Rank Order Frequency and Percentage of the Total Number
of Response Evaluation Criteria Met by
the Response Component

Number of Criteria Met	Nursing Diagnosis Statement	
	Frequency	Percentage
4	44	81.4%
3	8	14.8%
2	1	1.9%
1	1	1.9%

n = 54.

evaluation criteria, 14.8% (8) of the diagnoses met 3 criteria, 1.9% (1) of the diagnosis met only 2 criteria, and 1.9% (1) of the diagnosis met only 1 criterion.

Number of response components meeting each of the criterion. Table 9 illustrates the rank order frequency and percentage of the response components meeting each of the response criterion. Table 9 indicates that 100% (54) of the 54 response components met Criterion 7 on the Ziegler instrument (response potentially modifiable). The second most frequently met criterion was number 6 (only one response identified per diagnosis statement), 98.1% (53) met this criterion. The third most frequently met criterion of 90.8% (49) was number 5 (response component clearly unhealthy or written as potentially unhealthful response), 90.8% (49) met this criterion. The least frequently met criterion was number 8 (response identified as concrete enough to generate observable and measurable desired outcomes), 87% (47) met this criterion.

Table 9

Rank Order Frequency and Percentage of the Response
Component Met by Response Criteria

Criteria	Response Component	
	Frequency	Percentage
Response component is potentially modifiable (#7)	54	100
Only one response identified for each diagnosis statement (#6)	53	98.1
Response component clearly unhealthy or written as a potentially unhealthful response (#5)	49	90.3
Response identified is concrete enough to generate observable and measurable outcomes (#8)	47	87

n = 54.

Quality of the Predicted Outcomes

The quality of the predicted outcomes is reported according to (a) the total number of criteria met and (b) the number of predicted outcomes meeting each of the criterion.

Number of predicted outcome criteria met. Table 10 illustrates by frequency and percentage the total number of predicted outcome criteria met. This table shows that 61% did not meet any of the criteria and only 3.7% met 3 of the criteria for writing nursing diagnosis statements.

Number of predicted outcomes meeting each of the criterion. Of the 54 nursing diagnosis statements, 37 of the predicted outcomes (69%) met Criterion 14, 23 of the predicted outcomes (43%) met Criterion 15, and 2 of the predicted outcomes (4%) met Criterion 16 which are shown in Table 11.

Congruence Classification of the Response and Goal (Predicted Outcome) Sets

The response components and predicted outcomes were classified congruent or incongruent based on the decision reached by two of three judges on Criterion

Table 10

Frequency and Percentage of the Total Number of
Predicted Outcome Criteria Met

Number of Criteria Met	Frequency	Percentage
3	2	3.7%
2	19	35.2%
1	0	0.0%
0	<u>33</u>	<u>61.1%</u>
Total	54	100%

n = 54.

Table 11

Quality of Predicted Outcome: Rank Order Frequency and
Percentage of Predicted Outcomes Meeting the Criteria

Criteria	Predicted Outcome	
	Frequency	Percentage
Reflect more healthful response than response component (#14)	37	69%
Written in observable, measurable terms (#15)	23	43%
Time frame stated in specific patient outcome (#16)	2	4%

n = 54.

number 13 of the Ziegler instrument (reflect the response component of the nursing diagnosis statement). Of the 54 nursing diagnosis statements, 33 (61.05%) were classified congruent and 21 (38.5%) were classified incongruent.

Test of the Hypothesis

It was hypothesized that there is an association between the quality of the response component of the nursing diagnosis statement and the congruence classification of the response component with the predicted outcomes. The chi-square statistic was used to test the hypothesis. Chi-square is based on the assumption that if there is no relationship between two or more variables, then the likelihood of the individuals in the sample falling into various categories of each variable is a chance occurrence. The chi-square test picks up significance of any true departures from the frequencies that would be expected by chance (Polit & Hungler, 1978). When significantly more subjects are found in one category than would be expected by chance, this finding can be interpreted as an association between the two variables being tested.

Of the 54 response components of the nursing diagnosis statements and predicted outcomes available for use in testing the hypothesis, 33 were classified congruent and 21 were classified incongruent. Since the chi-square statistic utilized to analyze these data assumes that the expected frequency of the majority of the cells is not less than 5, the response criteria data were collapsed. The four response criteria met were collapsed into two categories as follows: two or less and three or more.

The congruence classification of the response component with the predicted outcomes and the quality of the response component (reflected in the total number of criteria met) were analyzed by computing the chi-square statistic ($\chi^2 (1) = .55, p > .05$) (Appendix I). As the computed value of χ^2 failed to reach significance at the .05 level, the hypothesis was rejected (Table 12).

Additional Findings

Further analyses were done to determine if there was an association between the quality of the predicted outcomes and congruence classification of the response component of the nursing diagnosis statement and the predicted outcomes. A chi-square analysis was computed

for congruence classification of the response and goal sets by number of goal criteria met. Table 13 illustrates the chi-square statistic utilized to analyze the data which assumes that the expected frequency of the majority of the cells is not less than 5, therefore, the data were collapsed. The number of criteria met was collapsed into two categories as follows: two or more and one or less. Since the computed value of χ^2 reached significance at more than .01 level, ($\chi^2 (1) = 12.91, p < .01$), the number of goal criteria met was significantly related to the congruence classification of the response-goal sets. This finding indicated that those response-goal sets classified congruent met significantly more of the predicted outcome criteria than those classified incongruent.

Summary of Findings

This chapter has presented the analysis and treatment of the data collected from a sample of 54 Data Format Sheets which were collected for a larger study containing information extrapolated from nursing care plans generated by graduate level nursing students. The following findings are summarized.

Table 13

Chi-square Summary Table of Congruence Classification of
Response and Goal Sets by Number of
Goal Criteria Met

Congruence Classification	Number of Criteria Met				Total
	2 or more		1 or less		
	Observed	Expected	Observed	Expected	
Congruent	19	12.83	14	18.94	33
Incongruent	2	8.17	19	12.06	21
Total	21	21	31	31	54

Note. $\chi^2 (1) = 12.91, p < .01$.

1. The interrater reliability of the Ziegler instrument was computed at a moderate .62 for the entire instrument. The reliability coefficient of .63 was computed for the response quality of the instrument, reliability coefficient .67 was computed for outcome quality, and reliability coefficient .61 was computed for diagnosis quality.

2. The quality of the nursing diagnosis statement was determined by the number of criteria met for Criteria 1 through 12 of the Ziegler instrument. The higher the number of criteria met, the greater the quality of the nursing diagnosis statement.

Of the 54 nursing diagnosis statements, 40 diagnoses met 12 criteria, 6 diagnoses met 11 criteria, 5 diagnoses met 10 criteria, 2 diagnoses met 9 criteria, and 1 diagnosis met 7 criteria. These findings showed that 74% of the nursing diagnosis statements met all of the Ziegler instrument criteria.

Of the 54 nursing diagnosis statements and predicted outcomes for the criteria met for each of the 16 criteria of the Ziegler instrument, the following findings were noted: 98% of the diagnoses met Criterion 1, 94% of the diagnoses met Criterion 2, 98% of the

diagnoses met Criterion 3, 98% of the diagnoses met Criterion 4, 91% of the diagnoses met Criterion 5, 98% of the diagnoses met Criterion 6, 100% of the diagnoses met Criterion 7, 78% of the diagnoses met Criterion 8, 98% of the diagnoses met Criterion 9, 81% of the diagnoses met Criterion 10, 70% of the diagnoses met Criterion 11, and 54% of the diagnoses met Criterion 12.

These findings showed that the etiology component of the nursing diagnosis statement and the predicted outcomes failed to meet the criteria and, therefore, the quality was poor. Criterion 10 (changeable), Criterion 11 (independent function), and Criterion 12 (concrete) of the nursing diagnosis statements were identified as the major areas of weakness for Criteria 1-12 of the Ziegler instrument. Only 68% of the etiology components of the nursing diagnosis statements met Criteria 10, 11, and 12. In addition, findings indicated Criteria 13, 14, 15, and 16 of the Ziegler instrument were major areas of weakness in the sample nursing diagnosis statements.

3. The quality of the response component of the nursing diagnosis statement was measured by Criteria

5 through 8 of the Ziegler instrument. The higher the number of criteria met, the higher the quality of the response component.

Of the 54 response components evaluated by the 4 criteria, a possible positive score of 216 would have been 100%. The composite score was 203 for the criteria met which is 94%, suggesting that quality of the response component was good.

In addition, from an accessible population of the 54 Data Format sheets, the quality of the response component of each nursing diagnosis statement evaluated showed the following: 44 of the diagnoses (81.4%) met all 4 criteria, 8 of the diagnoses (14.8%) met 3 criteria, 1 of the diagnosis (1.9%) met only 2 criteria, and 1 of the diagnosis (1.9%) met only 1 criterion. The most frequently met response criterion of the Ziegler instrument was Number 7, response component potentially modifiable, with 100%; the second most frequently met criterion was Number 6, one response for each nursing diagnosis statement, 98%; the third most frequently met criterion was Number 5, response component unhealthy, 98.7%; and the least frequently met criterion was Number 8, response concrete, 87%.

4. The quality of the goal-predicted outcomes was based on the decision reached by two of three judges on Criteria 14, 15, and 16 of the Ziegler instrument. Only 38.7% of the predicted outcomes met the criteria for 14, 15, and 16 for the goal-predicted outcome criteria. Of the 54 goal-predicted outcomes, 37 met Criterion 14; 23 met Criterion 15; and 2 met Criterion 16. These findings suggested that the quality for goal-predicted outcomes was poor.

5. Classification of the response component and goal-predicted outcomes sets was classified congruent or incongruent based on the results for Criterion 13, reflection of response component, of the Ziegler instrument. Of the 54 nursing diagnosis statements, 33 (61%) were classified congruent, 21 (39%) were classified incongruent.

6. The chi-square analysis computed to test the hypothesis indicated that there was not a significant association between the quality of the response component of the nursing diagnosis statement and the congruence classification of the response component with the predicted outcomes. Since the computed value of χ^2 failed to reach significance at the .05 level, the research hypothesis was rejected.

7. In addition, a chi-square analysis of the association between the number of predicted outcome criteria met and the congruence classification of the response-goal sets were computed. Since the computed value of χ^2 reached significance at more than .01 level, the number of goal related criteria met was significantly related to the congruence classification of the response-goal sets.

CHAPTER 5

SUMMARY OF THE STUDY

This chapter presents a summary of the study with a discussion of the findings. Conclusions are drawn with implications presented. Finally, recommendations for further study are advocated.

Summary

This study focused on determining the association between the quality of the response component of the nursing diagnosis statement and the congruence classification of the response directed outcome in the nursing care plans. The conceptual framework for the study was the four phase nursing process model by Yura and Walsh (1973). The four phases identified in the nursing process model consisted of assessment, planning, implementation, and evaluation. Important to the nursing process and to the present study is the nursing diagnosis--the product of the assessment phase. The nursing diagnosis statement provides the key to the nursing process and, in addition, gives purpose and direction to all other phases of the nursing process

(Yura & Walsh, 1978). Marriner (1975) declared that the development of goals through predicted outcomes based on a comprehensive understanding of the response component of the nursing diagnosis is crucial. Careful and deliberate goal-setting is essential to the planning phase of the nursing process. The blueprint is drawn when the goals are defined and the methods are identified which would accomplish the desired established goals. These outcomes provide a way to identify, measure, and evaluate behavior indicating progress toward resolution or problem-solving. Therefore, only with comparison of the predicted, measurable outcomes, which reflect a change in the unhealthful response component of the nursing diagnosis statement against the actual outcomes, will the nurse be able to determine that resolution of the problem was made through an accurate nursing diagnosis statement and appropriate intervention. The literature does not indicate what characteristics of the response component of the nursing diagnosis statement facilitate the generation of the predicted measurable outcomes.

A nonprobability convenience sample was obtained from an accessible population of 54 Data Format Sheets

collected for a larger study. The accessible sample of data existed in the form of secondary data which was extrapolated from nursing care plans generated by master's level graduate nursing students. One instrument was utilized in this study and developed by Ziegler (Note 1): The Ziegler Criteria for Evaluating the Quality of the Nursing Diagnosis Statement and the Predicted Outcomes of the Nursing Care Plan. This instrument consists of 16 criteria which were used to evaluate the general quality of nursing diagnosis statements, congruence classification of the response predicted outcomes, the general quality of the response component of the nursing diagnosis statement, and the quality of predicted outcomes.

The findings of the study indicated that the general quality of the nursing diagnosis statements was good and the quality of the response component of the nursing diagnosis statement was high. However, the number of criteria met for the etiology component of the nursing diagnosis statement and the predicted outcomes was poor. The findings indicated that the congruence classification of the response predicted outcome was not significantly associated with the

quality of the response component of the nursing diagnosis statement.

Discussion of Findings

The findings of the present study support some of the findings of DeBack (1981) and Ziegler (in press). DeBack's (1981) study indicated there was a deficiency on the part of undergraduate nursing students to formulate nursing diagnoses. Specific criteria met was used to determine the areas of strengths and deficits in formulation of nursing diagnoses. DeBack's conclusion was based upon the findings of the study which indicated that: (a) only 34% of the sample was able to define client problems in terms of client concerns based on demonstrated measures of concern, (b) only 94% stated client concerns which could be altered through nursing intervention, and (c) 56% was able to define potential or actual health concern.

Ziegler's (in press) study was conducted to determine to what extent nursing diagnosis statements met preestablished criteria for each component of the nursing diagnosis statement. Ziegler's sample involved graduate students beginning the program and the conclusions showed that nursing diagnoses did not contain

characteristics necessary for basing the remaining steps of the nursing process on the nursing diagnosis statement; the diagnoses did not facilitate the goals of individualized care, autonomy, or accountability of nursing practice; and there are incongruities between stated nursing diagnoses and goals.

Ziegler's conclusions were based upon the findings of the study which indicated that: (a) only 55% of the 168 nursing diagnosis statements could be evaluated according to all criteria, (b) only 6% met all the evaluation criteria, (c) 45% could not be evaluated according to criteria because of structural deficiencies, and (d) findings showed 79% experienced difficulty with the etiology component.

The present study indicated there was an improvement on the part of graduate students completing the program to formulate nursing diagnoses. The findings of the present study indicated that: (a) 94% of the sample was able to define client problems in terms of client response of high quality, (b) overall evaluation for the four criteria considered necessary for the etiology component was 76% but evaluation of each of these criteria demonstrated 54% had great difficulty

with Criterion number 12, etiology identified was not concrete enough to suggest a specific nursing activity; (c) only 70% of the diagnoses met Criterion number 11, independent function, indicating poor quality for these two criteria. Thus, etiology specific interventions and individualized care would be difficult to generate. This finding supported a similar finding reported by Ziegler's (in press) study and Gartland's (1982) findings.

Further analyses of the utilization of the response component to generate goals (predicted outcomes) revealed that 61% of the diagnoses generated goals from the response component and 39% of the diagnoses did not, which would tend to suggest that this is not a routine procedure. Less than 4% of the diagnoses met all of the predicted outcome criteria.

Only 33 of the response-goal sets were classified congruent, 21 were not. Over one-third indicated that the response component of the nursing diagnosis statement was not utilized to generate client goals. However, the findings did indicate that the number of predicted goal criteria met was significantly related to the congruence classification and, therefore, important to the nursing diagnosis statement.

The present study identified that only 38.7% of the nursing diagnosis statements met all the necessary criteria for predicted outcomes which reflect more healthful response; written in observable, measurable terms; and stated in specific time frame. The outcome is a precise statement of the end the nurse hopes to reach. The critical aspect of stating an outcome is that it be stated in measurable terms so it can be looked at and measured objectively. According to DeBack's (1981) study in evaluating the effectiveness of the nursing care plan, successful accomplishment of the outcome is the true measure. The last step of the nursing process, evaluation, would be difficult to implement because of the poor quality of the client goals.

There are incongruities between the stated nursing diagnosis and the predicted outcomes. Writing client goals in the form of predicted outcomes is identified as a weak link.

The evaluation of Criterion 14 (reflect a more healthful response than the response component) indicated 69% of the diagnoses met this criterion. However, for Criterion 15 (written in observable, measurable

terms) only 43% of the diagnoses met this criterion. For Criterion 16 (time frame stated in specific patient outcome) only 4% of the diagnoses reflected this criterion. Therefore, without stated measurable outcomes which reflect a change in the unhealthful response component of the nursing diagnosis statement, the nurse will be unable to determine that resolution of the problem was made through an accurate nursing diagnosis statement and appropriate intervention.

In DeBack's (1981) study, undergraduates had difficulty with the problem-identification step of the nursing process which is the nursing diagnosis and the criteria to assess effectiveness of nursing intervention. Therefore, the students had difficulty formulating nursing diagnosis statements utilizing the conceptual nursing process framework.

In Ziegler's (in press) study, graduate nursing students demonstrated deficiencies in formulating nursing diagnosis statements because of structural difficulties and, therefore, the nursing diagnosis statements did not adequately meet the preestablished criteria. According to these findings, incongruities cannot exist if goal attainments are to be used to

validate nursing diagnoses. Goals must reflect the response component of the nursing diagnosis statement, be written in observable, measurable terms, and stated in specific time frame. Without these characteristics, the nurse will be unable to determine if resolution of the problem was made through an accurate nursing diagnosis statement and appropriate intervention.

Although evidence has been provided by the investigator of the present study which reflects similar findings for certain preestablished criteria, 77.8% of the diagnoses adequately met the overall preestablished 16 criteria considered necessary characteristics for the nursing diagnosis statement and predicted outcomes. However, in evaluation of each separate criteria, deficiencies were identified for certain important criteria considered necessary in formulation of nursing diagnoses and for the evaluation phase of the nursing process. Without the necessary characteristic criteria, evaluation of the effectiveness of the nursing care plan and successful accomplishment of the predicted outcome is impossible. The graduate students had difficulty formulating nursing diagnosis

statements utilizing the conceptual nursing process framework.

There is little evidence of evaluation or comparison of any of the nursing diagnosis criteria and predicted outcomes in the literature. However, in DeBack's (1981) study, this researcher concluded that it would appear since there were specific courses on nursing diagnoses preparing graduate nurses, the outcomes would be similar for writing nursing diagnosis statements.

In addition, the findings of the present study support a statement by Resler (1982). Resler's study suggested difficulties in formulating nursing diagnosis which were related to the development of nursing diagnosis as a distinct step in the nursing process.

Findings of the present study indicated that if the nursing process is the methodology used by professional nurses to deliver quality patient care, then nursing educators need to develop additional educational programs to identify and reinforce the importance of the interrelated and interdependent steps within the nursing process.

In the professional practice of nursing, diagnosis cannot be used as a single entity but must be an integral

part of the nursing process. Conversely, the implementation of the nursing process must include nursing diagnosis as the conclusion drawn following the assessment phase.

The use of the nursing process by nursing practitioners will contribute to the refinement of its component elements. In addition, it will provide a useful methodology for monitoring the quality of nursing care based on the nursing process.

The nursing diagnosis is an essential step of the nursing process which synthesizes the observed facts of the client's condition and related relevant knowledge into a concise statement following the assessment phase. Thus, the nursing diagnosis provides a concise summary, a conceptual statement of the client's health status, and gives direction to the remainder of the nursing process.

Although professional nursing education espouses the nursing process as basic to practice, controversy remains regarding the use of criteria-based nursing diagnosis statements. Continuing development and refinement of the process itself, as well as the criteria for accepting nursing diagnosis, are necessary if

nursing is to continue to contribute to improvement of quality care and enhance nursing's autonomy and accountability.

Conclusions and Implications

Based upon the findings of this study, the following conclusions were drawn:

1. Because there was no association between the quality of the response component of the nursing diagnosis statement and the congruence of the response component with the predicted outcome, the identification of what characteristics of response component facilitate the generation of response specific predicted outcome remains unknown.
2. The sample manifested difficulty in formulating goals which would provide a way to identify, measure, and evaluate progress toward resolution or problem-solving.
3. The nursing diagnosis statements formulated by graduate master's level nursing students in this study do not indicate that the response component of the nursing diagnosis statement directs the generation of client goals.

4. The Ziegler instrument is a useful tool in providing criteria guidelines for the formulation of the nursing diagnosis statements and predicted outcomes for writing nursing care plans.

5. The interrater reliability of the instrument indicates that the instrument is a moderately reliable measure for the criteria contained in this instrument.

Based upon the conclusions of this study, the following implications were identified:

1. Nursing educators need to develop additional educational programs to identify and reinforce the interrelated and interdependent steps within the nursing process.

2. The nursing process must include the nursing diagnosis as the conclusion drawn from the assessment phase.

3. Refinement of the criteria for writing nursing diagnosis is necessary to improve the quality of patient care.

Recommendations for Further Study

Based upon the conclusions and implications of the study, the following recommendations have been made:

1. A similar study is recommended to examine the relationship between the quality of the nursing care plan and the corresponding nursing diagnosis statement.
2. Additional study is recommended to refine characteristics for writing nursing diagnosis statements.
3. A study is recommended to determine what type of nursing educational programs or workshops would best facilitate the clarification of the nursing diagnosis and nursing process.

APPENDIX A

TEXAS WOMAN'S UNIVERSITY
COLLEGE OF NURSING

AGENCY PERMISSION FOR CONDUCTING STUDY*

THE _____
GRANTS TO Barbara P. Booher
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.

Nursing Diagnosis: Response Component and
Predicted Goal Outcome Congruence

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: 2-1-73

Barbara P. Booher
Signature of Student

Signature of Agency Personnel

Shirley M. Ziegler
Signature of Faculty Advisor

*Fill out & sign three copies to be distributed as follows:
Original - Student; First copy - Agency; Second copy - TWU
College of Nursing.

APPENDIX B



Texas Woman's University

P.O. Box 22479, Denton, Texas 76204 (817) 383-2302, Metro 434-1757

THE GRADUATE SCHOOL

104

March 23, 1983

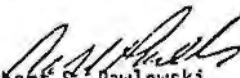
Mrs. Barbara Booher
1908 Nancy Lea
Bonham, TX 75418

Dear Mrs. Booher:

Thank you for providing the materials necessary for the final approval of your prospectus in the Graduate Office. I am pleased to approve the prospectus, and I look forward to seeing the results of your study.

If I can be of further assistance, please let me know.

Sincerely yours,


Robert S. Pawlowski
Provost

ec

cc Dr. Anne Gudmundsen
Dr. Shirley Ziegler

APPENDIX C

Evaluation Criteria

THE ZIEGLER CRITERIA FOR EVALUATING THE QUALITY OF THE NURSING DIAGNOSIS STATEMENT AND THE PREDICTED OUTCOMES OF THE NURSING CARE PLAN

THE NURSING DIAGNOSIS STATEMENT

General Criteria

1. Both the response and etiology component are present vs.:
 - A. Only one component present
 - B. No real response component; actually two etiologies identified
 - C. No real etiology component; actually two responses identified
2. The response and etiology component are joined with a "related to" phrase.
3. The response component is written first and the etiology component is written second.
4. The statement is asymmetrical, that is not circular.

Response Component Criteria

5. The response component is clearly unhealthy or written as a potentially unhealthful response.
6. Only one response is identified for each diagnosis statement.
7. The response component must be potentially modifiable.
8. The response identified is concrete enough to generate observable and measurable desired outcomes.

Etiology Component Criteria

9. Only one etiology is identified for each diagnosis statement.
10. The etiology identified must be potentially changeable.
11. The activity required to modify the etiology is within the boundaries of nursing's independent function, that is, the nurse is capable and is legally and ethically expected to treat.

12. The etiology identified is concrete enough to suggest a specific nursing activity vs. the suggestion of a variety of possible interventions, the choice of which requires more concise information.

THE NURSING CARE PLAN

The Predicted Outcomes Criteria

13. Reflect the response component of the nursing diagnosis statement vs.:
 - A. Reflect the etiology component
 - B. Reflect neither component of the diagnosis statement
14. Reflect a more healthful response than the response component.
15. Written in observable, measureable terms.
16. Time frame stated in specific patient outcome.

Ziegler, November, 1982. (Copyright)

APPENDIX D

Quality of the Nursing Diagnosis Statement and
Predicted Goal Outcome Evaluation Instrument

Directions

The following instrument consists of 16 criteria that are considered essential for the nursing diagnosis statement and the predicted outcomes. Carefully read each nursing diagnosis statement and predicted outcomes. Evaluate each of the nursing diagnosis statement and predicted outcome sets using the 16 evaluation criteria listed on the instrument criteria form attached. Place an "X" in the space labeled "yes" provided on your answer sheet if the criteria was met. Place "X" in the space labeled "no" provided on your answer sheet if the criteria was not met. These directions apply for all criteria except #1 and #13. If criteria #1 was not met, classify as to why in A, B, or C in column 1. If criteria #13 was not met, indicate why by checking A or B in column 13.

After completing the evaluation of the nursing diagnosis statement and predicted outcomes, please read the enclosed questionnaire and record your answer in the space provided. Your cooperation in performing these tasks is greatly appreciated. Please return all material to the researcher upon completion.

Term Definitions

Nursing diagnosis: The system's potential and/or actual response to identified potential and/or actual stressor. The diagnostic statement consists of two components: (1) response of a system, and (2) etiology or stressor identification.

Response component: It is clearly unhealthy or written as a potentially unhealthful response and is potentially modifiable.

Etiology component: It is the cause of an unhealthy response, must be potentially changeable, and within the boundaries of nursing's independent function.

Predicted outcome: It is the desired response stated in direction of health.

Evaluation Criteria

THE ZIEGLER CRITERIA FOR EVALUATING THE QUALITY OF THE NURSING DIAGNOSIS STATEMENT AND THE PREDICTED OUTCOMES OF THE NURSING CARE PLAN

THE NURSING DIAGNOSIS STATEMENT

General Criteria

1. Both the response and etiology component are present vs.:
 - A. Only one component present
 - B. No real response component; actually two etiologies identified
 - C. No real etiology component; actually two responses identified
2. The response and etiology component are joined with a "related to" phrase.
3. The response component is written first and the etiology component is written second.
4. The statement is asymmetrical, that is not circular.

Response Component Criteria

5. The response component is clearly unhealthy or written as a potentially unhealthful response.
6. Only one response is identified for each diagnosis statement.
7. The response component must be potentially modifiable.
8. The response identified is concrete enough to generate observable and measurable desired outcomes.

Etiology Component Criteria

9. Only one etiology is identified for each diagnosis statement.
10. The etiology identified must be potentially changeable.
11. The activity required to modify the etiology is within the boundaries of nursing's independent function, that is, the nurse is capable and is legally and ethically expected to treat.

12. The etiology identified is concrete enough to suggest a specific nursing activity vs. the suggestion of a variety of possible interventions, the choice of which requires more concise information.

THE NURSING CARE PLAN

The Predicted Outcomes Criteria

13. Reflect the response component of the nursing diagnosis statement vs.:
 - A. Reflect the etiology component
 - B. Reflect neither component of the diagnosis statement
14. Reflect a more healthful response than the response component.
15. Written in observable, measureable terms.
16. Time frame stated in specific patient outcome.

Ziegler, November, 1982. (Copyright)

Data Sheet

Nursing Diagnosis Statement	Predicted Outcomes
1. Noncompliance with insulin therapy related to lack of knowledge.	1. Client will demonstrate compliance with therapy within 3 days.
2. Potential non-compliance with therapy related to denial of disease	2. Client will demonstrate compliance with therapy treatment in one week.
3. Red sacrum related to inadequate circulation	3. Client's sacral area will show no signs of redness in 2 weeks.
4. Constipation related to immobility.	4. Client will have no symptoms of constipation in 4 days.
5. Social isolation related to communication deficit.	5. Client will demonstrate ability to interact with two family members within 2 weeks.

ANSWER SHEET

			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	Nursing Diagnosis	Predicted Outcome	yes/AIB/C	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/AIB	yes/no	yes/no	yes/no
1																		
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52																		
53																		
54		TOTAL																

Instrument QuestionnaireDirections

Based upon your experience in nursing in general and upon this exercise you have just completed,

Regarding the Evaluation

1. Did you have any difficulty following the directions and doing as requested utilizing this instrument?
2. If your answer to #1 was yes, what additional directions and/or information would you suggest?

APPENDIX E

INTERPRETING RELIABILITY	DIAGNOSIS QUALITY	DIAGNOSIS RELIABILITY	RESPONSE QUALITY	RESPONSE RELIABILITY	OUTCOME QUALITY	OUTCOME RELIABILITY	CONSEQUENCE CLASSIFICATION	RELIABILITY
1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1
3	1	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1	1
6	1	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1	1
9	1	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1	1
11	1	1	1	1	1	1	1	1
12	1	1	1	1	1	1	1	1
13	1	1	1	1	1	1	1	1
14	1	1	1	1	1	1	1	1
15	1	1	1	1	1	1	1	1
16	1	1	1	1	1	1	1	1
17	1	1	1	1	1	1	1	1
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19	1	1	1	1	1	1	1	1
20	1	1	1	1	1	1	1	1
21	1	1	1	1	1	1	1	1
22	1	1	1	1	1	1	1	1
23	1	1	1	1	1	1	1	1
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33	1	1	1	1	1	1	1	1
34	1	1	1	1	1	1	1	1
35	1	1	1	1	1	1	1	1
36	1	1	1	1	1	1	1	1
37	1	1	1	1	1	1	1	1
38	1	1	1	1	1	1	1	1
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72	1	1	1	1	1	1	1	1
73	1	1	1	1	1	1	1	1
74	1	1	1	1	1	1	1	1
75	1	1	1	1	1	1	1	1
76	1	1	1	1	1	1	1	1
77	1	1	1	1	1	1	1	1
78	1	1	1	1	1	1	1	1
79	1	1	1	1	1	1	1	1
80	1	1	1	1	1	1	1	1
81	1	1	1	1	1	1	1	1
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83	1	1	1	1	1	1	1	1
84	1	1	1	1	1	1	1	1
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86	1	1	1	1	1	1	1	1
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92	1	1	1	1	1	1	1	1
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95	1	1	1	1	1	1	1	1
96	1	1	1	1	1	1	1	1
97	1	1	1	1	1	1	1	1
98	1	1	1	1	1	1	1	1
99	1	1	1	1	1	1	1	1
100	1	1	1	1	1	1	1	1

APPENDIX F

Data Format For Nursing Diagnosis Research

Date:____/____/____

Code No:_____

Extrapolator:_____

Case Diagnosed:_____

Theory:_____

Clinical Area:_____

Nursing Diagnosis Statement:_____

Predicted Outcome (outcome criteria or goal):_____

Nursing Interventions (actions):_____

APPENDIX G

Quality of the Nursing Diagnosis Statement and
Predicted Goal Outcome Evaluation Instrument

Directions

The following instrument consists of 16 criteria that are considered essential for the nursing diagnosis statement and the predicted outcomes. Carefully read each nursing diagnosis statement and predicted outcomes. Evaluate each of the nursing diagnosis statement and predicted outcome sets using the 16 evaluation criteria listed on the instrument criteria form attached. Place an "X" in the space labeled "yes" provided on your answer sheet if the criteria was met. Place "X" in the space labeled "no" provided on your answer sheet if the criteria was not met. These directions apply for all criteria except #1 and #13. If criteria #1 was not met, classify as to why in A, B, or C in column 1. If criteria #13 was not met, indicate why by checking A or B in column 13.

After completing the evaluation of the nursing diagnosis statement and predicted outcomes, please read the enclosed questionnaire and record your answer in the space provided. Your cooperation in performing these tasks is greatly appreciated. Please return all material to the researcher upon completion.

Term Definitions

Nursing diagnosis: The system's potential and/or actual response to identified potential and/or actual stressor. The diagnostic statement consists of two components: (1) response of a system, and (2) etiology or stressor identification.

Response component: It is clearly unhealthy or written as a potentially unhealthful response and is potentially modifiable.

Etiology component: It is the cause of an unhealthy response, must be potentially changeable, and within the boundaries of nursing's independent function.

Predicted outcome: It is the desired response stated in direction of health.

Data Sheet

Nursing Diagnosis Statement	Predicted Outcomes
1. Potential cardiac instability related to the presence of stress.	<p>1. Stable cardiac status as indicated by normal blood pressure, normal heart rate, normal EKG configuration, no edema of extremities and normal cholesterol level.</p> <p>Decrease in numbers of observable stress related behaviors with no complaint of appetite loss or sleep disturbance and free of mood swings; no complaint of heart pounding heard.</p>
2. Inability to accept pregnancy related to physical changes in her body.	2. Acceptance of pregnancy and adapt her life style to being pregnant.
3. Inability to accept pregnancy related to fear of telling family and friends about pregnancy.	3. Develop a support system to deal with pregnancy.
4. Stress (anxiety) due to lack of mobility from full body cast.	4. To relieve the anxiety the patient feels due to immobility.
5. Anxiety (level 111) related to knowledge (about cardiac monitor).	5. Reduction of anxiety.
6. Increased risk of recurring myocardial infarction related to stress.	6. With utilization of stress management problem, the client should feel more relaxed.

Nursing Diagnosis Statement

Predicted Outcomes

	<p>In addition to a subjective feeling of relaxation, the client should demonstrate less overt signs of stress (such as increased ability to eat, ability to sleep, decreased swinging, and decreased burxism).</p> <p>Client should have a decreased potential for recurring MI due to decreased blood pressure, decreased heart rate, adequate coronary perfusion and decreased peripheral resistance.</p>
7. Potential myocardial infarction related to stress.	7. Decrease stress--evidenced by normal heart rate, normal blood pressure, lab values within normal limits, be able to sleep at night.
8. Potential frustration related to inability to cope with changing roles.	<p>8. Exhibition of fewer expressed signs of frustration identity changes experiencing with peers.</p> <p>Express changes in role with family.</p> <p>Maintain nutritional status.</p> <p>Express satisfaction with choice of options.</p> <p>Take on pregnancy role.</p>

Nursing Diagnosis Statement

Predicted Outcomes

-
- | | |
|--|---|
| <p>9. Inability to decide to keep or abort pregnancy related to lack of knowledge about available options.</p> | <p>9. Short goals:</p> <p>Increase in factual knowledge about realistic options available to her.</p> <p>Decrease perception of the severity of her problem.</p> <p>Increased realistic perception of situation.</p> <p>Increased rest and nutrition.</p> <p>Decreased unproductive worrying about the situation.</p> <p>Long term--P. O. goals--</p> <p>Decision to continue or abort pregnancy.</p> <p>Increased support from a significant other.</p> <p>Increased use of effective coping mechanism and problem solving skills.</p> |
| <p>10. Fear of having a baby related to lack of knowledge of labor, delivery, and pregnancy.</p> | <p>10. Lack of fear related to ignorance of pregnancy, labor, and delivery.</p> |
| <p>11. Potential for small birth weight baby related to poor nutritional habits.</p> | <p>11. Goal: develop nutrition record to be kept daily.</p> <p>Maintain steady even weight gain.</p> |

Nursing Diagnosis Statement	Predicted Outcomes
12. Potential for emotional disequilibrium due to lack of coping ability.	12. Develop adequate coping mechanism.
13. Depression as related to lack of satisfying relationship with husband.	13. By 1 week, client will verbalize feeling less depressed. In 2 weeks, client will be more animated (smiling, watching TV, no crying).
14. Inadequate family support related to lack of community health care resources.	14. Adequate home setting care for geriatrics; 20% decrease in hospitalization of geriatrics. Adequate baby sitting care as evidenced by 30% decrease in home accidents of children. Resources providing baby sitter care.
15. Anxiety related to unfamiliar, isolated environment of the critical care unit.	15. Reduce patient's feelings of anxiety P.O. Patient interpret environment as less threatening. Client verbalizes that is comfortable in unit. Client will have decrease .05 on state-trait anxiety.

Nursing Diagnosis Statement

Predicted Outcomes

-
- | | | |
|-----|---|--|
| | | Emigerent behavior of anxiety, i.e. dry mouth, complaints of nausea, inability to concentrate, and tremor will disappear. |
| 16. | Increased levels of stress in the Scott family related to undiagnosed illness of the economic providers (husband, father) or the group. | <p>16. Family as a group identifies their strength and stick together as a group rebuilding its normal line of defense.</p> <p>Family members can respond to this stress and other stressors and disintegrate and have their own separate needs met.</p> |
| 17. | Inadequate cardiac oxygenation related to inappropriate stress reducing behaviors. | 17. Provide adequate cardiac oxygenation. |
| 18. | Family disequilibrium related to inadequate knowledge of husband's condition. | 18. Assist Mrs. Scott in vocalizing worries, fears, concerns. |
| 19. | Potential for the development of poor self-esteem related to socially unacceptable bowel and bladder habits. | <p>19. Catherine--will be able to control bowel and bladder infections.</p> <p>Catherine will develop a feeling of mastery and control.</p> |
| 20. | Lack of adherence to prescribed medical regime related to lack of appropriate reinforced knowledge. | 20. Increased self-care behaviors as evidence by adherence to prescribed medication. |

Nursing Diagnosis Statement	Predicted Outcomes
	Demonstration of trusting relationship with primary nurse as evidenced by ease in communication of feelings.
21. Anxiety related to lack of understanding and knowledge of postpartum recovery phase.	21. Reduction of stress and anxiety, strengthening of coping mechanisms, and some degree of equilibrium.
22. Concern for Daniel's difficulty with breast feeding related to lack of understanding about breast feeding procedures.	22. David will demonstrate breast feeding adequately.
23. Maternal anxiety related to the care of her newborn.	23. The client's anxiety will be decreased with verbalization of her situation.
24. Impaired bonding with infant related to lack of contact with infant at birth and immediate post delivery time.	24. Mother spontaneously displays attachment behaviors (bonding, kissing, touching, and talking) with her infant.
	Mother verbalizes less uneasiness with her infant.
25. Inadequate provision of home health care to community residents related to lack of knowledge regarding Home Health Care educational program developers.	25. Within 6 mos. provide adequate home health care to 20% of the community residents in need of home health care.

Nursing Diagnosis Statement

Predicted Outcomes

-
- | | | |
|-----|---|--|
| | | Within one year provide adequate home health care to community in need of it. |
| 26. | Possible emotional collapse related to absence of emotional and financial resource person. | 26. (Relieving or preventing the system response)-- there would be no emotional breakdown and Mrs. Scott would be able to keep her family together and her home intact until Mr. Scott's recovery. |
| 27. | Potential for further injury due to altered levels of consciousness. | 27. Mr. Scott will develop no further injuries while in the emergency room.

Mr. Scott will develop no bruises, lacerations, or fractures.

No injury as a result of restraints.

Mr. Scott will not aspirate excess secretions. |
| 28. | Potential anxiety related to fear of unknown. | 28. Mrs. Scott will have adequate knowledge of child growth and development. |
| 29. | Maternal anxiety during post-partum related to lack of support for resolving the binding in phase of pregnancy. | 29. Mrs. Scott verbalizes her feelings relative to the anxiety that she is experiencing.

She experiences a reduction in anxiety. |

Nursing Diagnosis Statement	Predicted Outcomes
30. Anxiety related to inability to find meaning in acute impact of illness on life activities.	30. A decrease in anxiety exhibited by: (a) more relaxed composure (b) resumption of coping patterns.
31. Anxiety related to inadequate coping mechanism.	31. Decrease anxiety.
32. Anxiety related to fear of the intensive care environment.	32. Decrease pulse rate. Decrease respiratory rate. Verbalization that anxiety is decreased.
33. Regressive behavior related to unexpressed grief.	33. Decreased in regressive behaviors.
34. Anxiety related to lack of knowledge concerning cesarean delivery.	34. Decrease anxiety.
35. Potential noncompliance related to the knowledge deficit of the disease process.	35. Compliance with regimen perscribed with increased knowledge of diagnostic process. Diagnostic process in control and patient verbalize knowledge of diagnosis and understanding of regimen.
36. Inability to breast feed related to increased tension due to households confusion.	36. To decrease tension.
37. Increased anxiety related to talk of	37. To decrease anxiety the interventions will be

Nursing Diagnosis Statement	Predicted Outcomes
knowledge about cardiac monitors.	focused upon enhancing the level of knowledge.
38. Epigastric pain related to lack of knowledge of stress management techniques.	38. Client will report a decrease in frequency of epigastric pain.
39. Mother's anxiety related to her concern regarding her effectiveness as a parent.	39. Anxiety will be decreased as evidenced by her own verbalization and by observation of the mother interacting with her children.
40. Illness related to presence of stress.	40. Decrease in degree of illness as measured by normal blood pressure, normal heart rate, normal sinus rhythm, good coronary perfusion, good peripheral circulation, stable weight, no edema, normal labs.
41. Refusal to participate in therapy related to increased levels of stress.	41. P. O.--goal--will participate in all ordered therapies.
	P. O. (1) Patient talk freely with staff and family. (2) Patient follow therapy regimens.
42. Anxiety related to lack of information about cardiac monitor.	42. Decreased anxiety as indicated by: (a) decreased heart rate (b) decreased restlessness (c) return of appetite (d) improved sleep patterns (e) less irritable.

Nursing Diagnosis Statement	Predicted Outcomes
43. Withdrawal related to failure identity.	43. Goal--development of success identity.
44. Avoidance of school behaviors of Catherine related to fears of loss of parental love.	44. Reduction in avoidance behavior of school as evidenced by: (1) decrease absenteeism (2) ability of Catherine to stay in school all day (3) satisfactory peer relationships.
45. Frank symptoms of stress related to inability to cope with multiple family and job demands.	45. Abatement or decrease of stress symptoms.
46. Potential for increased incidence of illness within the community related to lack of knowledge of stress management.	46. No occurrence of illness within the family.
47. Anger related to the irrational belief that "I must have someone who is stronger than me to take care of me and for me to depend on."	47. Mrs. S. able to detect and debate her own rational beliefs.
48. Scape goating of siblings by mother as related to the court ordered therapy.	48. Have recognize therapy as a form of help rather than a sentence.
49. Potential for increased respiratory dysfunction related to ineffective cough mechanism.	49. Decrease/prevent suctioning through use of assisted cough technique. Decrease temperature.

Nursing Diagnosis Statement	Predicted Outcomes
50. Increased pain perception related to lack of cognitive control.	50. Decrease in pain perception, with verbalization of understanding of what to expect, and possibly a decrease in the number of requests for pain medications.
51. Physical exhaustion is related to direct care of her three young children.	51. Given that Mrs. Scott received outside assistance to care for her children while she was allowed to rest and spend time doing things she desired.
52. Pulling away from people related to behavior learned during childhood.	52. Expected outcomes are: Patient after leaving the hospital will be able to talk about his problem to first family and then friends.
53. Potential for stress related illness related to lack of knowledge of adaptation technique.	53. To reduce the potential of stress-related illness. Client will exhibit after 3 educational sessions the ability to perform a relaxation technique effectively.
54. Increased state anxiety related to lack of knowledge of relaxation techniques.	54. State anxiety will decrease.

Evaluation Criteria

THE ZIEGLER CRITERIA FOR EVALUATING THE QUALITY OF THE NURSING DIAGNOSIS STATEMENT AND THE PREDICTED OUTCOMES OF THE NURSING CARE PLAN

THE NURSING DIAGNOSIS STATEMENT

General Criteria

1. Both the response and etiology component are present vs.:
 - A. Only one component present
 - B. No real response component; actually two etiologies identified
 - C. No real etiology component; actually two responses identified
2. The response and etiology component are joined with a "related to" phrase.
3. The response component is written first and the etiology component is written second.
4. The statement is asymmetrical, that is not circular.

Response Component Criteria

5. The response component is clearly unhealthy or written as a potentially unhealthful response.
6. Only one response is identified for each diagnosis statement.
7. The response component must be potentially modifiable.
8. The response identified is concrete enough to generate observable and measurable desired outcomes.

Etiology Component Criteria

9. Only one etiology is identified for each diagnosis statement.
10. The etiology identified must be potentially changeable.
11. The activity required to modify the etiology is within the boundaries of nursing's independent function, that is, the nurse is capable and is legally and ethically expected to treat.

12. The etiology identified is concrete enough to suggest a specific nursing activity vs. the suggestion of a variety of possible interventions, the choice of which requires more concise information.

THE NURSING CARE PLAN

The Predicted Outcomes Criteria

13. Reflect the response component of the nursing diagnosis statement vs.:
 - A. Reflect the etiology component
 - B. Reflect neither component of the diagnosis statement
14. Reflect a more healthful response than the response component.
15. Written in observable, measureable terms.
16. Time frame stated in specific patient outcome.

Ziegler, November, 1982. (Copyright)

ANSWER SHEET		1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16	
Nursing Diagnosis	Predicted Outcome	yes	I/R/B	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no		
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54																																	
	TOTAL																																

Instrument QuestionnaireDirections

Based upon your experience in nursing in general and upon this exercise you have just completed,

Regarding the Evaluation

1. Did you have any difficulty following the directions and doing as requested utilizing this instrument?
2. If your answer to #1 was yes, what additional directions and/or information would you suggest?

APPENDIX H

APPENDIX I

COMPILATION SHEET OF JUDGES' RATINGS																DIAGNOSIS	RESPONSE	OUTCOME	CONGRUENCE CLASSIFICATION
SET	Y	A	B	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	QUALITY	QUALITY	QUALITY	
1	2	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
2	3	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
3	3	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	INCONGRUENT
4	3	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
5	2	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
6	2	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	INCONGRUENT
7	2	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	INCONGRUENT
8	3	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
9	3	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	INCONGRUENT
10	3	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
11	3	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	INCONGRUENT
12	2	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	INCONGRUENT
13	3	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
14	2	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	INCONGRUENT
15	3	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
16	2	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
17	2	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	INCONGRUENT
18	3	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	INCONGRUENT
19	3	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	INCONGRUENT
20	3	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
21	3	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	INCONGRUENT
22	2	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
23	3	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
24	2	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
25	3	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
26	2	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
27	3	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	INCONGRUENT
28	1	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
29	3	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
30	3	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
31	2	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
32	3	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
33	2	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
34	3	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	INCONGRUENT
35	3	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	INCONGRUENT
36	3	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	INCONGRUENT
37	3	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	INCONGRUENT
38	3	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
39	2	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
40	2	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
41	2	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
42	3	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
43	2	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	INCONGRUENT
44	3	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
45	2	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
46	3	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
47	3	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	INCONGRUENT
48	2	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	INCONGRUENT
49	2	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
50	3	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
51	3	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	INCONGRUENT
52	3	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
53	2	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
54	3	1	1	1	3	2	1	1	3	2	1	1	3	2	1	1	4	2	CONGRUENT
53	51	53	53	49	53	54	47	53	44	38	29	33	37	23	2	TOTAL NET CRITERIA			
98%	94%	98%	98%	91%	98%	100%	87%	98%	81%	78%	54%	61%	69%	43%	4%	NET CRITERIA			

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