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A philosophical analysis of conceptual models of nursing

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A philosophical analysis of conceptual models of nursing

by

Sandra Courtney Sellers

**A Dissertation Submitted to the
Graduate Faculty in Partial Fulfillment of the
Requirements for the Degree of
DOCTOR OF PHILOSOPHY**

**Department: Professional Studies in Education
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Ames, Iowa**

1991

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CHAPTER I

INTRODUCTION

Statement of the Problem

In the 1950s, American nursing practice was based on the medical model. During the last four decades, however, nurse scholars began to think seriously about the unique scope and domain of nursing. They began to explore the nature of nursing and the purposes for which nursing exists. They also began developing nursing theory as a foundation for nursing practice and education. This endeavor has presented nurses with the motivation to examine nursing's heritage, its goals and the values upon which nursing is based.

Since the 1950s, American nursing theory development has focused on the establishment of a metaparadigm for nursing as well as many paradigms for nursing. The metaparadigm of nursing is comprised of the global concepts that represent the phenomena of interest to nursing. A review of the current nursing literature reveals a consensus about the global or metaparadigm concepts of nursing: person, environment, health and nursing (Fawcett, 1983; Flaskerud and Halloran, 1980). The paradigms of nursing are represented by abstract, diverse conceptual models of nursing that provide distinct perspectives of the four metaparadigm concepts.

Between 1952 and 1989, twenty conceptual nursing models were published (Fawcett, 1989; Marriner-Tomey, 1989). Each model provides a different conceptualization of nursing and a different world view. The models present distinct views about the nature of person-

environment relationships and different cognitive orientations to nursing. The models provide guides for the organization of nursing knowledge and prescribe nursing practice, research and education.

With the proliferation of nursing conceptual models, there is a need for nurses to examine these models for their relevance to current nursing practice and education. Specifically, there is a need for nurse educators to analyze the models since nursing knowledge is becoming organized rapidly around and developing from these abstract conceptual models. In addition, the models prescribe the purposes to be fulfilled by nursing education and the curriculum and educational processes needed to achieve these purposes.

Various critiques of the conceptual nursing models have been conducted and generally have consisted of detailed examinations of the content of the models. Fawcett (1989) asserted that these critiques have failed to analyze thoroughly the assumptions and philosophical bases of the models. "They have not examined, in any depth, their philosophical orientations or their world views of the nature of human beings, the nature of knowledge and truth and the nature of nursing science" (Fawcett, 1989, p. 42). In addition, a review of nursing dissertation abstracts from August 1988 through August 1990 revealed that no studies have explored whether or not there has been a change in the espoused philosophy of nursing since the inception of the conceptual nursing models in 1952. This is surprising, since philosophy provides a holistic perspective about the beliefs, values, goals and social significance of nursing.

Behaviorism, in the form of the Ralph Tyler rationale, has prescribed nursing education curriculum development and the direction of nursing educational thought since 1952 (Bevis and Watson, 1989). In addition, state boards of nursing and the national nursing educational accrediting agency (National League for Nursing) have adopted Tylerian/behaviorist curriculum products as criteria for approval and accreditation of all nursing educational programs in the country. This institutionalized behaviorism is nursing's tacitly agreed-upon version of truth in educational curriculum. It has become uniformly applicable to all nursing curriculum efforts and has limited curriculum exploration to behaviorist theory.

The use of the Tylerian curriculum development model has frozen nursing in a behaviorist framework. It has entrenched nursing education in a training modality, brought behavioral objectives and evaluation methods into primacy, and has been responsible largely for the rise of competency-based education and evaluation in nursing education.

Similar to the medical model, behaviorism is materialistic, reductionistic and empirical. It proposes that all learning is evidenced in some form of empirically observable behavior. It consists of deductive logic and supports procedural knowledge. It is based on the traditional sciences, and tends to allow for one concept of reality and one way of knowing.

With recognition of the inadequacies of the medical model and the development of nursing theory, some nurse educators are

advocating a curriculum revolution in nursing education (Tanner, 1988). These educators base the identified need for a radical change in nursing education on the assumption that the philosophy of nursing, through theory development, no longer supports pragmatic behaviorism. If this assumption is accurate, a dissonance within nursing exists between nursing theory and nursing education. Although a change in nursing education is being proposed, there is no evidence in the nursing literature that nursing's philosophy has changed, that nursing education's curriculum paradigm is incongruent with its theory or that a revolution in nursing education is needed.

Purpose of the Study

The purpose of this study was to examine the philosophical orientations of the conceptual nursing models from the 1950s to the present in order to determine whether or not there has been a change in nursing philosophy and what implications any change might have for nursing education. Specifically, the study attempted to answer the following four research questions:

What are the philosophical orientations of the conceptual models of nursing?

Is there evidence in the nursing literature of a change in nursing philosophy since the first American nursing conceptual model was published in 1952?

If there has been a change in nursing philosophy, what is the current dominant philosophy of nursing?

What implications does the current philosophy of nursing have for nursing education?

Significance of the Study

As the most plentiful and accessible health care discipline, nursing has a mandate from society to use its body of knowledge to promote and preserve the health of humankind. Philosophy is concerned with the pursuit of knowledge in its broadest sense. It attempts to provide a unified view of phenomena and to find coherence and continuity in the whole realm of thought and experience. It provides the foundation that queries the worth of phenomena that can lead to greater understanding and the formulation of priorities and goals.

An investigation of the philosophy of nursing allows nurse educators to comprehend nursing in its entirety. It enables educators to reconsider the fundamental assumptions, concepts, generalizations, values and the purposes of nursing education.

With the recent development of nursing theory in the form of conceptual nursing models, a change in nursing philosophy may have occurred. If a change in nursing philosophy has taken place and nursing education is continuing to employ a behaviorist philosophical orientation, this would seem to leave nursing education as the last bastion of behaviorist/empiricism within the discipline of nursing. Such an incongruity of nursing's sanctioned educational paradigm and nursing's philosophy damages nursing education's capacity to be socially responsive, is antithetical to the preparation of compassionate,

scholarly nurse clinicians needed in today's health care system, and demands that nursing educators explore new models for nursing educational curriculum development. If, however, there has been no change in the philosophy, and behaviorism, in the guise of the medical model, continues to be the espoused philosophy of nursing, the study can identify opportunities available to nurse educators for becoming more responsive to changing societal needs and leading the discipline into the new millennium.

Methodology

To analyze the philosophical orientations of the conceptual nursing models, the framework for analysis suggested by Fawcett (1989) was employed. Although other published frameworks were considered (Dickoff, James and Wiedenbach, 1968; Jacobson, 1985; Marriner, 1986; Nicoll, Meyer and Abraham, 1985; Stevens, 1984), Fawcett's framework was selected because it is qualitative rather than quantitative; it is the most comprehensive model; and it is the only framework that includes an examination of the historic evolution, knowledge development and philosophical assumptions of the conceptual nursing models.

The framework consists of a series of questions about the development, primary focus, content and areas of concern of each of the conceptual models. The questions allow for an examination of the overall structure, as well as the content of the model, permitting a view of its gestalt. The following questions comprise the framework

(Fawcett, 1989, p. 43): What is the historical evolution of the conceptual model? What approach to the development of nursing knowledge does the model exemplify? Upon what assumptions is the conceptual model based? How are nursing's four metaparadigm concepts explicated in the model? What statements are made about the relationships among the four metaparadigm concepts? What areas of concern are identified by the conceptual model? Fawcett (1989) also proposed that the analysis be accomplished by "examining exactly what its author has presented, rather than by making inferences about what might have been meant by any statement or by referring to others' interpretations of the author's works" (p. 44).

Fawcett's framework for analysis was used in this study for a detailed examination of each of the conceptual nursing models. Based on this analysis, the philosophical orientations of the models were explored. Specifically, the ontology (world view), the epistemology (knowledge) and axiology (values) of each of the models were identified and examined.

Limitations

Although twenty nursing conceptual models have been developed, this study was limited to an analysis of the following five conceptual nursing models: the Psychodynamic Nursing Model proposed by Hildegard Peplau (1952); the Deliberative Nursing Process Model of Ida Jean Orlando (Pelletier) published in 1961; the Unitary Human Beings Model of Martha Rogers (1970); the Adaptation Nursing

Model proposed by Callista Roy (1976); and Jean Watson's Human Science and Human Care Model (1988). These five models were selected for several reasons. First, the selected models span the past four decades of nursing theory development in America, allowing for an historical review of the philosophical orientations of the models. Second, the selected models are five of the most visible models in the nursing literature and extensive research has been conducted on these models to substantiate their applicability to clinical nursing practice. Third, the selected models seemingly are derived from different theories of many other disciplines and offer distinct perspectives of nursing. Finally, the five models provide a representative sample of the twenty conceptual nursing models.

The study also was limited to the analysis of the original works in which the conceptual models were published. Since most of the authors of the conceptual models are prolific writers and have published extensively in the nursing literature, some of the selected conceptual models have undergone revisions as the authors refined their models. It was evident from a review of the nursing literature, however, that the original versions of the models provided the major philosophical orientations of the models and the authors' subsequent revisions have expanded and clarified the models, but have not made any substantive changes in the models.

Organizational Structure of the Study

The study is organized into five chapters. The first chapter introduces the problem to be investigated, delineates the research questions and presents the methodology, limitations and the value of the study for nursing education. Chapter II consists of a review of the nursing literature and provides a theoretical foundation for the study. Chapter III focuses on an analysis of each of the five selected conceptual nursing models, using the framework for analysis proposed by Fawcett (1989). Chapter IV analyzes the philosophical orientations of the five models and discusses the changes in nursing philosophy that have transpired during the last four decades. The final chapter summarizes the findings of the study and discusses the implications of the study's findings for nursing education.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

The purpose of this investigation was to examine the philosophical foundations of conceptual nursing models from the 1950s to the present in order to determine whether or not there has been a change in nursing philosophy and what implications any change in philosophy might have for nursing education. A review of the literature relevant to the investigation is presented in this chapter. The literature review is organized into two major sections. The first section presents an historical review of American nursing education and attempts to provide a theoretical understanding of how the Tylerian/behaviorist curriculum development model has become frozen in nursing education and why some nurse educators are advocating a curriculum revolution in nursing education. The second section focuses on nursing theory development and provides a foundation for the analysis of the conceptual nursing models. The chapter concludes by summarizing the literature review and reemphasizing the significance of the study.

Nursing Education

Organized nursing education was initiated in the United States after the Civil War with the establishment of the first nursing educational programs. Similar to other American institutions of higher education, an English model was used as the prototype. In 1873, three

nursing schools, based on the English Nightingale model of nursing education, were established. The three schools included the Bellevue Training Nursing School in New York, the Connecticut Training Nursing School and the Boston Training Nursing School (Dock and Stewart, 1938).

Each of the original classes had six students. The hospitals agreed to place the students under the direction of a female superintendent, provided the students also did the scouring and cleaning. Although the schools attempted to follow the Nightingale model and attracted educated women, their overall purpose was to improve conditions in charity hospitals and provide the least expensive means of providing care. Most of the learning occurred by accident (Dock and Stewart, 1938, p. 155).

In the early twentieth century, there was a proliferation of nursing training schools. In 1880, there were 15 schools; by 1890, 432; and by 1909, there were 1,105 hospital-based diploma schools of nursing (Kelly, 1985, p. 42). Hospitals, with as few as twenty beds, opened schools and the students provided almost totally free labor. The students were under the control of the hospital and worked from 12-15 hours a day and twenty-four hours a day if they cared for persons in their homes (Muff, 1988).

Classes, if any, were scheduled for an hour late in the evening when a physician was available to teach. Only two percent of the nurses' education consisted of theory, focusing primarily on medical

knowledge related to anatomy, physiology, chemistry, bacteriology, hygiene and diseases (Kelly, 1985, p. 45).

From the inception of the nursing educational programs, there were physicians who objected to any theoretical education for nurses. The medical literature devoted considerable space for their fulminations about the overtrained nurse.

The work of a nurse is an honorable "calling" or vocation and nothing further. It implies the exercise of acquired proficiency in certain more or less mechanical duties and is not primarily designed to contribute to the sum of human knowledge or the advance of science. . . . To feed their vanity with the notion that they are competent to take any considerable part in ordering the management of the sick is certainly a most erroneous step (Ingles, 1976, p. 147).

Other physicians suggested correspondence schools for educating nurses. A New York newspaper editorial proclaimed, "What we want in nurses is less theory and more practice" (Bullough and Bullough, 1975, p. 44).

A few nurses and physicians, however, argued that nursing education should focus on preparing nurses for a profession. In 1901, Richard Cabot, a physician, recommended that nurses should pay for their education and be taught by paid teachers; nursing should be taught by nurses, not physicians; and nursing education should be not limited to practical education. "Subjects like literature and history,

which tend to give us a deeper sympathy with human nature, are surely needed in the education of the nurse, who is to deal exclusively with human beings" (Ingles, 1976, pp. 139-140).

Apprenticeship education became firmly established. The idea of establishing nursing schools in hospitals, in which students could care for patients and, in the process, learn the techniques of nursing care, has had persistent consequences for nursing education. Learning by doing became the guiding force.

This educational system seemed to benefit everyone. Hospitals, for almost no money, established the schools and provided care for patients through the use of student labor. Young women, generally barred from higher education, found a way to learn an occupation. Physicians were able to extend their practice by using these young women, whom they were able to train and form into willing and subservient workers. It transformed medical care into medical practice. In effect, physicians could shift the time-consuming "care" component of their services to another type of worker so that they were free to devote full time and energy to their "cure" function. As a consequence, the physician could triple the size of his practice, improve his economic condition and become the one of the highest paid workers in American society. The community profited by having student nurses available in the hospital and homes to provide nursing care at almost no cost. Finally, society benefited through reduced morbidity and mortality rates (Grippando, 1986).

The period between 1910 and 1950 encompassed a time of multiple changes for nursing education. In the early 1900s, nurse leaders advocated improvement in the nurse training programs as well as for improvement in the practice of graduates of the programs. As a consequence, the programs were lengthened to three years. Most of the training programs, however, remained under the control of hospitals and physicians and the needs of the hospital superceded those of the school. The hours were still long and students continued to give free service, with "book learning" as an afterthought. Physicians continued to complain of overtrained nurses (Kelly, 1985). Nursing was still considered a trade because the schools were not situated in an academic setting and because there was no definitive body of knowledge or autonomous practice roles.

As the Flexner Report (1910) was bringing about reform in medical education by eliminating correspondence courses and revising the curriculum, nurse leaders were agitating for reform in nursing education. Women were beginning to have some success in being accepted into American colleges and universities. There was only limited success, however, in moving nursing education into academe. In 1903, the University of Minnesota became the first baccalaureate program in nursing (Dolan, 1958). The program, however, more closely resembled a good diploma nursing program than other university programs. In addition to meeting university admission standards and taking a variety of natural sciences' courses, the students worked fifty-six hours a week in the hospital and were awarded a diploma instead

of a degree after three years. Similar programs were started by other academic institutions. Prior to World War I, several hospitals and universities such as Presbyterian Hospital of New York and Columbia Teacher's College offered degree options for nurses. These programs developed into five-year programs, with two years of college and three years in a diploma nursing school. This five-year pattern of university education became a common pattern that lasted through the 1950s (Dolan, 1958).

World War I brought an increased demand for and a severe shortage of nurses. Admission standards were lowered. Even with the patriotic fervor generated by the war, it was difficult to entice women into nursing. Kelly (1985) stated that high school girls objected to the life of drudgery, strenuous physical labor, severe discipline, lack of freedom and the limited satisfactory options for employment connected with nursing.

In addition, nursing education was experiencing more difficulty. Educational programs lacked funds to build a quality educational structure. In 1918, Nutting sought funds from the Rockefeller Foundation to study nursing education. The findings of this Goldmark Report (1923) were similar in significance to the Flexner Report for medical education (Dolan, 1958). The Report concluded that schools of nursing needed to be placed in academic institutions and that the curriculum must consist of nursing content integrated with a liberal education.

The Education Committee of the League of Nursing Education published the Standard Curriculum for Schools of Nursing Education in 1917 (Bevis, 1988). It described an optimal curriculum so that schools could improve voluntarily their educational programs. It was published at a time when state requirements were minimal and not uniform. "This book provided objectives, content and methods for each course and listed materials, equipment and bibliographies" (Bevis, 1988, p. 29). The book was revised in 1927 and 1937 under the title of A Curriculum Guide for Schools of Nursing (Bevis, 1988). This book was one of the first and most important documents directing and regulating nursing educational curriculum.

The Curriculum Guide posited that nursing curricula should reflect the activities, functions, duties and responsibilities of nurses working in the field. It compiled a list of 800 detailed nursing activities. Some of the broader categories included observing and recognizing symptoms; carrying out curative and preventive nursing procedures; administering medications and treatments; assisting the physician in examining patients; teaching measures to conserve and restore health; and cooperating with family, hospital personnel, and health and social agencies in the interests of patients and the community (Lindeman, 1989, pp. 23-24). After World War II, this book was out of print.

Physicians continued to oppose theoretical education for nurses. They lobbied the public that nurses needed only technical skills, manual dexterity and obedience. For example, Charles Mayo, deciding

that "city-trained nurses were too difficult to handle, too expensive and too educated," attempted to recruit 100,000 rural nurses (Bullough and Bullough, 1978, p. 156).

Some financial assistance came with the Roosevelt administration. Dolan, Fitzpatrick and Hermann (1983) documented that the Federal Emergency Relief Administration (FERA) allocated funds for bedside care for indigent clients and for visiting nurses. Thousands of nurses were employed in numerous settings such as public hospitals, clinics and public health agencies. Nursing practice became more diversified and expanded beyond the hospital.

By 1936, the number of hospital nursing diploma programs had decreased from more than 2,200 in 1929 to less than 1,500 state-accredited programs. There were seventy collegiate nursing programs of the combined liberal arts and hospital school pattern (Dolan et al., 1983, p. 190). Recognizing the lack of qualified nursing faculty, baccalaureate nursing programs began to offer specialized degrees in nursing education, public health or administration. There also was the slow, but gradual, development of graduate nursing programs.

World War II brought changes to nursing education. As anticipated in wartime, nurses were in demand in the armed services and a nursing shortage existed. This nursing shortage continued following World War II. Although there were more nurses than ever, there also were expanded health services, a larger population to be served, growth of insurance plans that paid for hospital care, and

scientific advances that prolonged life. These changes increased the complexity of nursing practice.

In the 1950s, a different kind of nurse entered the nursing discipline. Kelly (1985) proposed that the development of the nurse technician, educated in the community college, was the most dramatic change in American nursing education since its inception. Associate degree nursing (ADN) programs were established throughout America in 1952 (Dolan et al., 1983). It was the influence of ADN programs, that were nondiscriminatory and nonpaternalistic, that loosened the rigidity in both diploma and collegiate nursing education. Also, as the ADN programs expanded, the hospital diploma programs continued to decrease.

Nursing education was facing a major transition period during this time. The quality of nursing education, particularly the curriculum, was under severe criticism. The 1948 Brown Report asserted that nursing education was not professional education and promoted the strengthening of national accreditation. Bevis and Watson (1989) identified that from the 1940s until the mid-1950s, there was a hiatus in curriculum paradigms. The old Curriculum Guide was not republished and nothing else existed. Into this curriculum vacuum came the adoption of the Tyler model (1950) and its institutionalization by the nursing accrediting bodies at state and national levels.

In 1955, Ole Sand published a report of three years of action research in curriculum revision, conducted at the University of Washington School of Nursing, with Ralph Tyler as consultant. This

publication substantiated the practicality of using the Tyler rationale to develop nursing curriculum. The model of curriculum development used and recommended to American nursing education was the Tyler model (Sand, 1955).

First published as Syllabus for Education 360 at the University of Chicago in 1949 and then reprinted in 1950 as Basic Principles of Curriculum Instruction, Tyler's book of 128 pages has had a major impact on American education and has become a mandatory curriculum model for nursing education. Tyler (1950) defined curriculum development as a planned, systematic, continuing, cyclical process that needs to answer the following four questions:

What educational purposes should the school seek to attain?

What learning experiences should be selected that likely will be useful in attaining these purposes?

How can these learning experiences be effectively organized?

How can the school ascertain whether or not the purposes are being attained?

Tyler (1950, pp. 3-43) concluded that the first question is addressed by the development of a clear educational philosophy and specific educational objectives. The objectives flow from the philosophy and represent the ends of the educational process. They become the criteria for curriculum development, implementation and evaluation.

Tyler's other three questions focus on the means of education. Curricular activities directed by these three questions include: (1) the

selection of learning activities for the achievement of the objectives; (2) the organization of learning experiences for continuity, sequence and integration; and (3) evaluation of the achievement of the educational objectives.

Tyler's model advocates a philosophy of behaviorism. Conceptualizing education as the process of changing the behavior patterns of people, his curriculum model begins with identifying behaviors and ends with evaluation to determine whether these behaviors have been met. Thus, behavioral objectives and behavioral evaluation methods have primacy.

Behaviorism, in the form of the Ralph Tyler model rationale, has prescribed nursing education curriculum development and the direction of nursing educational thought since the 1950s. State boards of nursing and the national nursing educational accrediting agency (the National League for Nursing) have adopted Tylerian/behaviorist curriculum products as criteria for approval and accreditation of all nursing educational programs in the United States. This institutionalized behaviorism is nursing's agreed upon version of the ends and means of education. It has become applicable to all nursing educational efforts and has limited educational exploration of other educational models.

The context in which Tyler's model was institutionalized in nursing education is significant and the factors that influenced the acceptance and exclusive use of the Tylerian curriculum model by nursing education merit consideration. One factor was the emergence of

behaviorism as a dominant force in American education. By the mid-1940s, the influence of John Dewey was waning. His more powerful but less researched ideas rapidly gave way to behaviorism. Behaviorism adheres to Thorndike's (1949) assertion that whatever exists, exists in some amount and can be measured. This assertion gave shelter to a plethora of educators and their theories. In addition to Tyler's ends-means curriculum model, there were contributions such as Thorndike's connectionism (1949), J. B. Watson's behaviorism (1924), Skinner's stimulus-response-associationism (1953), Bloom's work both on the cognitive educational domain and mastery learning (1968; 1956), Gagne's conditions of learning (1970) and Taba's learning activity or inverted curriculum-development model (1962). These were only a few of the educators who developed models and influenced education. They were articulate spokespersons for the behaviorist movement. In addition, almost all evaluation models arose from their empiricist-behaviorist tradition.

The persuasive power of these advocates of behaviorism may not have been sufficient alone to move nursing to institutionalize a behaviorist curriculum development model in nursing education, but coupled with other historical factors, it became inevitable. After World War II, nurse educators began to desire higher education. They sought master's and doctoral degrees. There was a recognition of the needs for nursing to become a legitimate profession and part of higher education. To achieve these needs, nurse educators had to seek higher degrees. At this time, however, there was a dearth of master's nursing programs

and an absence of doctoral programs. Consequently, nurse educators seeking higher education majored in fields that had some relationship to nursing, such as education, sociology, psychology and biology. For nurse educators and nursing educational administrators, degrees in education were by far the most popular (Bevis and Watson, 1989, p. 26).

The progression of events resulted in nurse educators receiving degrees in schools of education, most of which emphasized behaviorist curriculum development. Teachers, earning degrees in schools of education, came back to nursing educational programs armed with the logic of behaviorism, which was supported by Sand's work at the University of Washington School of Nursing.

Concurrently with the influence of behaviorism in nursing curriculum development, state boards of nursing and the nursing accreditation agency, the National League for Nursing (NLN), were seeking more effective and efficient ways to govern and regulate the quality of nursing educational programs. When the Tyler curriculum model was accepted by nursing education in the 1950s, state nursing boards and the NLN developed criteria which mandated that all nursing educational programs use a philosophy, concepts or strands, and behavioral objectives at all levels of the curriculum (Bevis and Watson, 1989). These criteria were applicable uniformly to all nursing educational programs--diploma, associate degree, baccalaureate and master's degree. Thus, a forced sameness in curriculum development resulted, with similarity in the graduates, leading to difficulty in

differentiating among the graduates of diploma, associate degree and baccalaureate nursing programs.

Two other forces affirmed the Tylerian curriculum model in nursing education. The first was Bevis's book on curriculum development (Bevis, 1972). This book, the first to translate primary and secondary educational curriculum development behaviorist theory into a useful handbook for nursing education, became a standard textbook for nursing students in nursing curriculum courses and for nursing faculty developing nursing curriculum.

The other force was Mager. Soon after the publication of Mager's book, Preparing Instructional Objectives (1962), workshops were held throughout the United States and nurse educators were required to attend these workshops to learn how to write and use measurable, behavioral objectives. "The reverence for behavioral objectives reached such a peak that even their development has become formula driven and rigid" (Bevis and Watson, 1989, p. 28).

At present, the Tylerian curriculum products have been translated into essential curricular components. Without evidence of these components, there cannot be approval of educational programs by the state boards of nursing or accreditation by the national nursing accrediting agency.

The state licensing board is the legal controlling board designated by the laws of each state to protect the public by insuring safe and competent nursing care. The board has the two major functions of

licensing and registering nurses and establishing minimum curriculum requirements for all nursing educational programs in the state.

The licensing and registering of all nurses in the state entails the board certifying the students who can write the licensing examination, administering the licensing examination, and if the student successfully passes the examination, licensing the student as a registered nurse. All students, regardless of whether they graduated from an ADN, diploma hospital school or a baccalaureate educational nursing program, write the same licensing examination. The board also acts as a policing agency by the suspension and revocation of nursing licenses if incompetent, unethical or illegal nursing actions are validated.

The second function of the board is to establish minimum curriculum requirements for the education of nurses. The board prepares and distributes criteria of curricular events that must be included in the educational programs and makes visits to each educational program every two years to insure that each program meets these criteria. The curricular criteria require that each program have a philosophy, a conceptual framework that articulates the organizing concepts of the curriculum, and terminal behaviors or outcomes of the program. A course syllabus and course outline must be developed for each course taught in the program. The syllabi and outlines must include measurable course objectives, class objectives, a content outline, planned student learning activities and evaluation methods that are used to assess achievement of the class and course

objectives. In addition, all curricular changes, other than editorial changes, must be approved by the state board.

The National League for Nursing (NLN) is the designated national accreditation agency for standard-setting and evaluation of all nursing educational programs and is recognized as such by the National Commission on Accrediting (NCA). The criteria, policies and procedures used by NLN dictate that educational programs be evaluated in relation to their own statements of philosophy and purposes. In order to be eligible for accreditation, the educational program must be located in a facility that is accredited regionally and must have full approval of its state board of nursing. In addition, the program must be fully implemented so that students have graduated by the time of the visit. The process takes a minimum of two years and involves a detailed self-evaluation report that has assessed all aspects of the program.

The NLN accreditation criteria have been consolidated and, in the last two decades, have become more precise and quantitative. Presently, the criteria are organized under the following five headings: Organization and Administration; Students; Faculty; Curriculum; and Resources, Facilities and Services. The curriculum criteria require the same curricular documents as the state licensing board, but in more detail.

Therefore, if a school does not follow the Tylerian or a similar curriculum model and cannot illustrate the products of the model, its graduates are not allowed to take licensure examinations. Nor can a

school be accredited. This seems to be institutionalization at its most powerful level.

It must be recognized that nursing has used the Tyler curriculum model in a way never intended by Tyler. His guide for a ends-means curriculum evolved in nursing as a legal code in which curricular products and codified processes created a single-track educational prescription that ignored other aspects of education not covered by behaviors and finite preconceived measurable outcomes.

The mandatory use of the Tyler curriculum model, however, has benefited nursing in several ways. The model is excellent for those aspects of nursing that are oriented toward the learning of facts and the development of psychomotor skills. The model provides consistency among the various technical and professional nursing programs. The strict insistence of measurable behavioral objectives, supported by accreditation, has focused the training and instructional aspects of nursing on the provision of a highly organized, evaluation-oriented, and regulated discipline that provides services of reliable quality. Along with improved state rules and regulations governing nursing schools and excellent accreditation procedures, schools of nursing have attained a quality seen in few other service fields. "They have demonstrated the ability to monitor and police themselves and a sense of responsibility and commitment to the public trust that is not found in any like group such as medical, legal or clerical" (Bevis and Watson, 1989, p. 29).

As the Tylerian model was assuming a position of primacy in nursing education in the last four decades, other significant changes

were occurring in nursing education. One change was the consistent movement of nursing education into academe and the closing of the hospital schools of nursing. Between 1968 and 1972, ADN programs increased by 211 programs to 541 programs and BSN programs increased by 58 programs to 293 programs (Aiken, 1982, p. 480). In 1980, there were 1,615,846 registered nurses in the United States. Over 63% of these nurses graduated from diploma programs, 18% graduated from ADN programs and 17.8% graduated from BSN programs. Approximately 55% of the nurses had a diploma as the highest credential, 17% the ADN degree, 22.1% the BSN degree and 5.1% of the total population had master's and doctoral degrees (Aiken, 1982, p. 480).

Although the educational levels of nursing faculty are below their faculty colleagues in higher education, nursing education has made progress. The National League for Nursing (1986, pp. 61-65) reported that in 1984, there were a total of 31 doctoral programs in nursing. In 1990, the number had expanded to 53 doctoral nursing programs, with programs distributed among 28 states (Sigma Theta Tau, 1990). The numbers of student enrollment in doctoral programs have increased 28% since 1983. A total of 415 doctorates were granted to nurses in the United States from August, 1989, through August, 1990, with 262 in nursing (Sigma Theta Tau, 1990). The number of master's programs has increased over 23% during the last five years and 40% in the last decade. It is interesting to note, however, that the percentage of master's and doctoral nursing students preparing for nursing education

has steadily decreased. The National League for Nursing (NLN) reported that master's students interested in teaching decreased from 17.6% to 6.7% in 1984 (NLN, 1986, p. 77). Only 36 doctoral dissertations of the 415 dissertations written from August, 1989, to August, 1990, focused on nursing education (Sigma Theta Tau, 1990).

Another change currently influencing nursing education is the knowledge explosion and changing composition of the American population. Tanner (1990) described a multitude of changing technological, political and social forces that are demanding changes in nursing education. Prospective payment has altered hospital nursing practice and has increased demands for nursing services in home care and long-term care. The increasing number of the elderly and the prolonged survival of the chronically ill are reflecting the inadequacy of the current biomedical health care system to address societal needs for health promotion, illness prevention and long-term health care. New technology, seemingly introduced daily, requires the use of sophisticated computerized automated equipment and communication systems that challenge the social and moral uses of knowledge and the humanization of health care. There is growing public awareness and dissatisfaction with the American model of health care, with its narrow biomedical perspective that overlooks major societal conditions such as poverty, homelessness and environmental pollution. The inadequacy of health care has become evident in the limited resources allocated for long-term care, the societal prejudices toward disenfranchised groups

and other societal health problems such as drug abuse and the global epidemic of AIDS.

These changes are mandating a different nurse--a nurse educated, not trained. Nurses are needed who are can master analytical problems, apply scientific knowledge and make difficult value judgments. These changes require nurses who are more responsive to societal needs, more caring and compassionate, more successful in humanizing health care, more insightful about ethical and moral issues, more creative, more capable of critical thinking and better able to develop scholarly approaches to society's problems.

Another force influencing nursing education is the current changes in higher education. Gaff (1983), Kerr and Gade (1981) and Sawhill (1980) have summarized emerging trends in higher education. They identified the changing composition of students seeking higher education. Kerr and Gade (1981, p. 112) reported that by the mid-1990s, traditional students will decrease by 23% and that this decrease will be supplemented by increases in multicultural students, foreign students, older students, women and part-time students. This will require increased diversity in curriculum design and the incorporation of adult educational principles as well as alternative approaches to the teaching-learning process. Due to cultural pluralism, the curriculum also needs a multicultural perspective in order to expand students' understanding of other cultures as well as their own heritage and culture.

Another trend emerging in higher education is the increased emphasis on balancing breadth vs. depth and prescription vs. election. Gaff (1983) argued that alternative approaches in curricula are needed, with more integration, consistency, coherence and a clear rationale for curricular approaches. He advocated more interdisciplinary and cross-disciplinary courses. Sawhill (1980) contended that rather than integration, more interrelatedness of breadth and depth is needed. He agreed with Gaff, however, that there needs to be a clear sense of identity and rationale for curriculum.

Another trend in higher education is the need for an emphasis on advanced learning skills in the curriculum. Sawhill (1980) asserted that there needs to be an increased emphasis on skills' components, such as critical thinking, writing, mathematics, speaking, research, computer literacy and library skills across the curriculum. Not only will these skills assist students with successful achievement, but also with lifelong learning.

The increase in the clarification of the social and moral uses of knowledge is another trend in higher education. Gaff (1983) proposed that students must be able to address the relevant pressing social and scientific concerns and the curriculum must foster moral and ethical decision-making.

A number of national studies and reports over the past several years have assessed the quality of higher education and professional education in the United States and are relevant particularly for nursing education. These include the following: The Paideia Proposal: An

Educational Manifesto (Adler, 1982); "Needed: A New Way to Train Doctors," Harvard Magazine (Bok, 1984); Physicians for the Twenty-First Century: The GPEP Report (1984); Involvement in Learning: Realizing the Potential of American Higher Education (1984); To Reclaim a Legacy (Bennett, 1984); and Integrity in the College Curriculum: A Report to the Academic Community (Association of American Colleges, 1985). These reports propose a number of similar recommendations for improving the quality of American higher and professional education:

Restore the central nature of the liberal arts in postsecondary and professional education.

Increase curricular structure and coherence.

Increase the emphasis on intellectual skills, such as analysis, problem-solving and critical thinking.

Increase the emphasis on mastery of basic principles rather than specific facts.

Increase the emphasis on fundamental attitudes and values.

Increase the emphasis on lifelong learning.

Decrease specialization at the undergraduate level.

Increase the emphasis on broad and rigorous baccalaureate education prior to professional preparation.

Each report voiced concern about the excessively vocational and narrow nature of professional education and the erosion of liberal

education. The professional of the future must have a different type of educational preparation than is available currently.

Another change that has influenced nursing education is the reconceptualization of curriculum. The curriculum literature of the 1970s and 1980s has explored alternative paradigms or ideologies within which curriculum thought is embedded. Such works as Apple (1979), Freire (1970), Giroux (1988), Greene (1978; 1988), Kliebard (1977), and Pinar (1975) have proposed alternative curriculum ideologies that focus on phenomenological and critical curricular models that transcend behaviorism and embrace meaning, experiencing, dialogue and a commitment to emancipation. Curriculum is viewed not as a plan that lists behavioral objectives, but as the transactions that take place among students and teachers.

Concurrent with these new curricular ideologies has been the rise of feminist pedagogy in education. Feminist pedagogy is based on a feminist praxis. It incorporates thoughtful reflection and action that occur in synchrony toward the goal of transforming the world. The transformation that is sought is a vision that is grounded in feminist ethics, multiple ways of knowing, caring and empowerment (Gilligan, 1982; Noddings, 1989). Since nursing remains 97% female (Fagin and Maraldo, 1988, p. 367), feminist pedagogy must be considered.

The changes in nursing, health care, higher education and curriculum thought prompted nurse educators to call for a curriculum revolution at the 1987, 1988, 1989 and 1990 National Conferences on Nursing Education. A central concern of the curriculum revolution is the

need for nursing to transform the health care system from its "narrow and contorted view of the biomedical model that dominates health care today" (Tanner, 1990, p. 297). Another theme of the curriculum revolution is the reclaiming of caring as a central core value in nursing. A final theme, and the most articulated theme, of the curriculum revolution is emancipation of nursing from the singular and narrow view of what constitutes education, i.e., the Tyler behaviorist curriculum model (Tanner, 1990, pp. 296-298).

Bevis and Watson (1989) have summarized the major reasons they believe a curriculum revolution is needed in nursing education. First, the Tyler behaviorist model proposes one type of learning. It is prescriptive and oppressive. It promotes deductive logic and procedural, technical, content-driven knowledge. It is authoritarian, highly controlled and is concerned with teacher-selected content. Students focus on what to think, not how to think. It allows for one concept of reality and one way of knowing. "There is no emphasis on educational excellence or equity" (Bevis and Watson, 1989, p. 3). Bevis and Watson also consider behaviorism to be a masculine theory. "As a masculine theory, it lacks the elements necessary to the feminine needs of both teaching and nursing" (Bevis and Watson, 1989, p. 4).

A second reason identified for a curriculum revolution is that nursing and education are caring social services and feminine disciplines. As feminine disciplines, they are based on human science, not traditional sciences and require curricular models that are flexible, open and whole.

The final, and the major reason identified by Bevis and Watson (1989) for a curriculum revolution, however, is that there has been a shift in nursing philosophy. They assert that until the 1950s, nursing was based on the medical model which is dualistic, reductionistic, objective, logico-deductive, quantitative and diagnosis and treatment oriented. With the development of nursing theory, they postulate that nursing's philosophy, theory and research methodologies have changed. If this is accurate, nursing education is out of step with its philosophy and research. Such a dissonance within a discipline demands a remedy. The incongruity of nursing's sanctioned educational paradigm and nursing's philosophy can damage nursing's capacity to be socially responsive.

Nursing Theory Development

Since the inception of American nursing education, the practice and education of nurses have been based largely on medical knowledge. Nurses, initially taught by physicians, were instructed in what physicians thought nurses needed to know to carry out the medical regime for the client. Even the advent of university education for nurses did not change this approach, for curricula were organized by medical specialty areas and emphasized the biological and natural sciences. To some extent, this educational focus persists today.

Allan and Hall (1988) concluded that historically the germ theory marked the beginning of modern biomedicine. "It revolutionized medicine by providing a scientific rationale for the continued

commitment to the Cartesian belief in the opposition of mind and body" (Allan and Hall, 1988, p. 23). Adopting the germ theory as the major paradigm for medicine, however, has precluded advances in the conceptualization of health and in the prevention and treatment of disease. "This paradigm has blocked a vision of person, health and environment and has prevented a view of health as a complex, multidimensional phenomenon, not merely the absence of disease" (Allan and Hall, 1988, p. 23).

Hughes and Kennedy (1983) pointed out that the medical model represents an ontological view of disease. It views disease as a self-contained thing. Disease is something apart from the person that attacks the person. Each disease is presumed to be monocausal. The technology of the medical model, then, is concerned with diagnosing a disease, discovering a single cause and determining a specific cure.

According to Allan and Hall (1988), medicine was not always an ontological science. In the fourth century B. C., during the time of Hippocrates, medicine was a holistic science with a panenvironmental focus. The discovery of the germ theory in the mid-19th century steered medicine into a tightly focused biochemical orientation that stressed causation and treatment of specific diseases within a mechanistic view of the body (Dubois, 1959). Today, the concept of disease is grounded so firmly in biomedicine that few question it. Those who do usually are found in the fields of public health, anthropology, sociology, nursing or holistic medicine. Members of these disciplines

find themselves struggling to develop a paradigm to view body-mind-society interactions (Scheper-Highes and Lock, 1987).

The influence of the germ theory and the Cartesian view of the body in medicine is illustrated further by examining the concepts of disease and illness. Physicians diagnose and treat disease, whereas people experience illness (Eisenberg, 1977). "Diseases are abnormalities in the function or structure of body organs and systems, while illnesses are subjective experiences of individuals with altered physiological, social or psychological states of being" (Kleinman, 1980, p. 87). Physicians fit illnesses into abstract diagnostic categories of biological conditions that are independent of the environment, society and culture. Thus, to receive care, the person's subjective sense of what is wrong and the complexity of social-environmental relationships involved must be reduced to a biological malfunction.

According to Allan and Hall (1988), the diagnostic labeling employed within the medical model has some severe consequences. This process has an over deterministic effect on symptomology; it constrains efforts at prevention; it forces practitioners to label everything, even when no valid label exists within the organizing framework; and it leads to treatment of disease as an end in itself, not as a means to a better life, happiness or self-defined goals (Allan and Hall, 1988). The diagnostic labeling of the medical model robs people of control over their lives and what they feel about themselves. It leads to medicalization of life processes, such as pregnancy, grief and

menopause. It medicalizes the elderly, who have chronic illness, but who otherwise regard themselves as healthy people.

The process of medicalization entails the tendency to transform the social into the biological. Figlio (1977) concluded that medicine has assumed authority over people's lives by transforming social and ethical problems into a biomedical format for which the physician is the expert. In doing so, physicians presuppose the view that the person is dissociable into a self and a body and that this body is dissociable into elements. The result, Figlio (1977, p. 286) contends, is a form of alienation and reification in which physicians have gained power over a wide area of human life.

Disease is treated using technology that is at times very dehumanizing. Elkin (1985) asserted that very aggressive metaphors are used when discussing disease. Wars and battles are waged against disease and disease is conquered and beaten. Ignoring the cost to the person, medicine kills the disease.

The medical model not only separates the disease from the person, but also excludes the environment. The person's disease is understood apart from contextualizing factors, and causation is considered to be monoetiological. Such an approach ignores the increasing evidence that diseases confronting people today are both multifactorial and involve interacting genetic, physiological, psychological and sociological components (Cassel, 1974). Conditions such as obesity, coronary heart disease, cancer and acquired immune deficiency syndrome (AIDS), which all involve complex person-

environment relationships, cannot be understood using the monocausal medical model. Monocausal biologically reductionistic thinking also directs a treatment orientation that neglects health promotion and illness prevention, focusing the physician's attention on cure (Breslow, 1977).

Allan and Hall (1988) stated that a common argument for continuation of the medical model is that it has led to tremendous improvements over the last 100 years in the health status of Americans. It is believed widely that longevity and decreased morbidity can be attributed to medical advances. With the exception of infectious diseases, however, which is the prototype on which the medical model was established, the medical model has not been effective for the health care problems facing American society.

The Surgeon General's Report (1990) concluded that only 10% of the improvement in mortality can be traced to medical intervention, and this is related specifically to the treatment of infectious diseases through use of antibiotics. All other improvements in health, including the decrease in morbidity and mortality rates from infectious diseases, have been the result of public education, improved nutrition, improved sanitation, changes in reproductive patterns and better quality of life (U. S. Surgeon General's Report, 1990). Although major economic investment has been directed to medicine for the improvement of health, funding has been channeled not into prevention and health promotion measures, but into research of dramatic surgical and medical techniques that use a monoreductionistic model that treats

sociocultural, environmental and humanistic factors as extraneous or irrelevant, and that have had little effect on the improvement of health (Elkin, 1985).

Another argument for the medical model, proposed by Allan and Hall (1988), is that medical technology has greatly improved the people's health. Coronary artery bypass surgery (CABS) is cited frequently as an example to substantiate this argument. The CABS rate climbed from 80,000 in 1976 to 380,000 in 1986 and is the procedure most recommended for blocked coronary arteries (Health Facts, 1986, p. 2). Its proponents claim that CABS reduces incidence of angina and prolongs life. The CABS rate continues to rise today, despite a large National Heart, Blood and Lung Institute clinical trial that demonstrated that, except for a small minority (9%), the surgery had no advantages over drug therapy (Health Facts, 1986, p. 3).

Waitzkin (1979) analyzed the emergence of coronary care units (CCU), whose expansion was widespread despite the lack of research evidence that CCUs made any difference in outcome. What evidence there is demonstrates the ineffectiveness of CCUs in treating clients with coronary problems. Studies, using random controlled trials, revealed that simple bed rest at home was more effective in producing longevity than placing a person in a CCU (Waitzkin, 1979). Equally effective was the use of the general hospital unit. Home care and general hospital treatment had the obvious advantages of being more humane and less expensive. If CCUs are not effective, then why have

they grown in such numbers that currently no modern hospital could afford to be without one?

Waitzkin (1979) cited ample evidence that CCUs were developed to sell equipment and fill hospital beds. In his analysis of the links between business and medical research centers, Brown (1979) identified that since the wholesale adoption of the monocausal, biologically reductionistic medical model, the major strategy for making biomedicine more effective has been biochemically focused research and the development of more complex technology. Brown (1979) also asserted that this monocausal, individual approach to health services has enabled biomedicine and industry to ignore the social, economic, political, humanistic, ethical and environmental factors that contribute to health problems and avoid developing strategies for changing them.

The ineffectiveness of medical intervention and the fact that many treatments are just a stab in the dark does not keep them from being used. The idea seems to be to do something, even if there is no hope, to keep the client alive a few more days. "Life" in this context appears to have a very narrow definition that excludes consideration of its quality.

The technological interventionist approach to disease treatment evolves from a particular epistemological tradition in science. The medical model uses logic derived from the received view of science in which empirical issues are separated from metaphysical ones and are concerned primarily with knowledge that can be understood only through the scientific method. This view of treatment is consistent with

the long standing American belief in the efficacy of science and technology, underpinned by a mechanistic view of the universe and faith in the rationality of humans in the battle between the person and nature (Dubos, 1965).

The medical model affects every aspect of nursing. Medicine has been so powerful politically that the practice of other less disease-oriented disciplines has been curtailed or even eliminated from the health care system (Brown, 1979). The history of medicine is a study of the consolidation of authority by the attainment of economic control over the market and the banishment of other health practices from the healing arts. This has been accomplished through sexism, legal intimidation and political action directed at restricting licensure of other fields. A few alternative health care providers such as chiropractors, osteopaths and optometrists have survived, but these disciplines have coopted to accept and follow the medical model. The problems for those attempting to advance an alternative philosophy is not only fear of legal retaliation, but also the elimination of clinical and research funding. The result has been the creation of a monolithic and often myopic profession with a unified vision of health and disease. The social policies resulting from this medical philosophy provide a restricted view and a lack of quality health care (Starr, 1982).

According to Phillips (1977), the medical model forces nursing to view health-illness manifestations as organic phenomena in which emphasis is placed on disorders in the structure and function of the body. With this disease orientation, the nurse is concerned with

underlying deficits or structural aberrations--changes in organs, tissues and cells--which "must be identified, prevented, removed, counteracted, neutralized, or corrected" (Phillips, 1977, p. 4). The medical model framework of signs and symptoms, cause, pathology, course and prognoses, and treatment is used by the nurse to plan and implement nursing care. The use of the medical model compels a person to view disease as a failure of the body as a physiochemical machine and clients are helped by interventions directed toward physiological processes (Engle, 1970).

The process of nursing education within the medical model has its theoretical base derived primarily from the biological sciences. A review of nursing textbooks, that are medically oriented, reveals principles directed toward minimization or elimination of the disease process. Nursing interventions are directed toward causal factors or pathology.

According to Marriner-Tomey (1989, p. 51), nursing has been practiced in the United States for more than a century, but theory development in nursing has evolved only in the past four decades. Not until the 1950s did nursing begin serious efforts to develop and articulate nursing theory. Until the emergence of nursing theory in the 1950s, nursing practice was based on traditions passed on through an apprenticeship form of education and the medical model.

During the 1950s, however, nurses began to think seriously about the unique scope and domain of nursing. They began to explore the nature of nursing, the purposes for which nursing exists and began

developing nursing theory as a foundation for nursing practice, nursing research and nursing education. This endeavor has presented nurses the motivation to examine nursing's heritage, its goals and purposes, its knowledge and the values upon which nursing is based. Chinn and Jacobs (1978) postulated that the development of nursing theory is the most critical task facing nursing today. The unique purposes of nursing require a body of knowledge that is not provided by medical knowledge or by the knowledge of any single discipline outside of nursing.

Meleis (1985, pp. 12-13) defined theory as an organized, coherent articulation of a set of statements related to significant questions in a discipline that are communicated in a meaningful whole. Theory is a symbolic depiction of aspects of reality that are discovered or created for the purpose of describing, explaining, predicting or prescribing phenomena. Theories are comprised of concepts that are related to the discipline's phenomena. These concepts relate to each other to form theoretical statements or propositions.

Nursing theory is a set of concepts, definitions and propositions that project a holistic view of nursing by designating specific interrelationships among concepts for describing, explaining, predicting or prescribing nursing. Nursing theory assists in identifying the focus and the means and ends of nursing. It articulates nursing's body of knowledge and its philosophy. It provides a search for conceptual coherence and directs nursing practice, research and education. The development of nursing theory and the knowledge base for nursing has

been a slow process and has focused on the development of a metaparadigm for nursing as well as alternative paradigms for nursing.

Each discipline singles out certain phenomena with which it will deal in a unique manner. Metaparadigm, proposed by Kuhn (1970), is a construct that identifies the areas of interest or the most global perspective of a discipline. It acts as an encapsulating unit or framework, within which restricted structures develop, and is the first level of distinction between disciplines (Eckberg and Hill, 1979, p. 927). It is not unusual, however, to find that more than one discipline is interested in the same or similar concepts.

The metaparadigm of a discipline presents the gestalt or a total world view. This gestalt forms the foundation and boundaries for inquiry and knowledge development within the discipline. It holds the commitment and consensus of the members within the discipline. In general, the metaparadigm: (1) is accepted by most members of the discipline; (2) serves as a way of organizing perspectives; (3) defines what areas of knowledge are of interest; and (4) tells the members of the discipline how to evaluate and validate areas of knowledge (Hardy, 1978, p. 39). Most disciplines have a single metaparadigm, but multiple paradigms.

The metaparadigm of nursing continues to evolve and evidence supporting the existence of a metaparadigm of nursing is accumulating. A review of the literature of nursing theory development has revealed consensus about the central concepts of nursing. These are person,

environment, health and nursing (Fawcett, 1983; Flaskerud and Halloran, 1980).

Stevens (1979) identified that persons must be defined in two ways: first, in their entirety as human beings, and second, in their roles as clients or candidates of nursing. Person may be an individual, a family, a community or a particular group. Environment refers to the person's significant others and surroundings, as well as the setting in which nursing actions occur. It also is concerned with time, space and quality variations of the person's environment. Health is the purpose for which the person and nurse are together. It is the identified goal of nursing. The concept of health is examined within a health-illness context because nursing actions occur in this aspect of a person's life. Nursing refers to the actions taken by nurses on behalf of or in conjunction with the person. It also emphasizes the cognitive, behavioral and social aspects of nursing actions (Fawcett, 1989, p. 7).

Identification of the metaparadigm is an important step in the evolution of nursing. The next step is refinement of the metaparadigm concepts or themes. This occurs at the level of the paradigm, rather than at the metaparadigm level.

Firlit (1990, p. 4) identified that within a discipline, several paradigms may coexist. The paradigms are derived from the metaparadigm and incorporate the most global concepts in a restrictive, but still abstract, manner. Each paradigm represents a distinct view of reality within which the metaparadigm phenomena are explicated and each contains different philosophical orientations. The paradigms of

nursing are represented by abstract, diverse conceptual nursing models.

Chinn and Jacobs (1987, p. 2) contend that conceptual models refer to global ideas about phenomena of interest to a discipline. Conceptual models consist of abstract concepts and propositions, which interrelate the concepts into a meaningful configuration. The assumptions and propositions linking the concepts also are abstract generalizations that are not researchable immediately. These global ideas and statements are expressed in a distinct manner in each model and provide refinement or a different understanding of the metaparadigm.

Each model provides a distinct frame of reference for its adherents, telling them what to look at and speculate about. It determines how the world is viewed and what aspects of the world should be taken into account. A conceptual model gives direction for the search for relevant questions about phenomena and points out solutions to problems. The content of each conceptual model reflects the philosophical stance, cognitive orientation, research tradition and practice modalities of a particular group of scholars within a discipline, rather than the beliefs, values, thoughts, research methods, and approaches to practice and education of all members of the discipline. The adherents of each conceptual model comprise a subculture or community of scholars within the discipline (Eckberg and Hill, 1979). Each conceptual model, therefore, is a unique synthesis of concepts and presents a distinct perspective for the metaparadigm of the discipline

and is the first step in developing the theoretical formulations needed for scientific activities.

Conceptual models evolve from empirical observations and intuitive insights of scholars or from deductions that creatively combine ideas from several disciplines. Conceptual models are developed inductively when generalizations about various observed events are formulated. These generalizations often are initially within the frame of reference of a related discipline. The synthesis that occurs in the development of the conceptual model, however, results in a product unique to the field. Conceptual models also may represent deductive systems that creatively combine propositions from several disciplines. Specific situations are viewed as examples of other general events (Bush, 1979).

Nursing theory is developing from numerous conceptual nursing models. Between 1952 and 1989, twenty conceptual nursing models have been published. These include the following: Peplau's Psychodynamic Nursing Model (1952); Abdellah's Twenty-One Nursing Problems (1955); Orlando's Deliberative Nursing Process Model (1961); Wiedenbach's Helping Art Clinical Nursing Model (1964); Hall's Core, Care and Cure Nursing Model (1965); Travelbee's Human and Human Relationship Nursing Model (1966); Levine's Conversation Model (1969); Rogers's Unitary Human Beings Nursing Model (1970); King's Goal Attainment Nursing Model (1971); Orem's Self-Care Nursing Model (1971); Sisca's (Reihl) Symbolic Interactionism Nursing Model (1974); Roy's Adaptation Nursing Model (1976); Leininger's Cultural Care

Nursing Model (1978); Johnson's Behavioral System Nursing Model (1980); Parse's Man-Living-Health Nursing Model (1981); Neuman's System's Nursing Model (1982); Fitzpatrick's Life Perspective Nursing Model (1983); Benner's Novice to Expert Nursing Model (1984); Newman's Health as Expanding Consciousness Nursing Model (1986); and Watson's Human Science and Human Care Nursing Model (1988) (Marriner-Tomey, 1989).

Each conceptual nursing model provides a different conceptualization of nursing and reflects a different world view. Each presents the essential metaparadigm nursing concepts of person, environment, health and nursing in a distinct way. The models represent various schools of thought within nursing, with diverse assumptions and philosophical orientations. The models present distinct views about the nature of person-environment relationships and cognitive orientations to nursing. They provide direction for the development and organization of nursing knowledge and prescribe nursing practice, research and education.

Hall (1977) and Peterson (1977) have linked the proliferation of conceptual nursing models to nursing's desires to conceptualize nursing as a discipline distinct from medicine and to develop its theory. As with conceptual models of other disciplines, the conceptual nursing models represent various paradigms derived from the nursing metaparadigm. It is not surprising, therefore, that each conceptual nursing model defines the four metaparadigm concepts differently and links these concepts in diverse ways. They are formal presentations of some

nurses' private images of nursing. They facilitate communication among nurses and provide explicit orientations not only for nurses, but also for the general public. "Conceptual models specify for nurses and society the mission and boundaries of the discipline. They clarify the realm of nursing responsibility and accountability to provide direction for nursing practice, research and education" (Fawcett, 1989, p. 7).

The conceptual nursing models not only differ in philosophical and cognitive orientations, but also differ in their development and structure. As indicated previously, the models can be developed inductively from the nurse's empirical observations and intuitive insights or deductively from the realm of knowledge of other disciplines. The models also are structured differently.

Fawcett (1989, pp. 13-19) summarized that the conceptual nursing models are structured according to the discipline or theoretical frameworks from which they were derived. The most frequent theoretical frameworks used to develop and structure the nursing models are the developmental, interactional, general systems, stress-adaptation and humanistic theoretical frameworks (Fawcett, 1989; Leddy and Pepper, 1989).

Developmental theories emphasize the continuous evolutionary process of growth, maturation and change over time. Development theory views an individual or group changing progressively and sequentially to a more complex and differentiated state over time or with age, with no final stage of development. Developmental theory contends that all organisms progress or develop in fairly predictable,

continuous, orderly and sequential steps called phases or stages. Each stage or phase usually is distinguished by a dominant feature or characteristic that gives each stage coherence, unity and uniqueness. Each organism's development is a unique process that emerges out of continuous interaction with the environment and is influenced by the interplay of genetic (nature) and environmental (nurture) factors (Leddy and Pepper, 1989, pp. 159-172).

Interactional theory emphasizes social acts and relationships among people. It views the person as a reflection of society, primarily a social and cultural being. The theory focuses on the development of self as a consequence of relationships with others and the environment. It postulates that the importance of social life lies in providing the person with language, self-concept and role-taking ability. The important concepts of interactional theory include perception, communication, role and self-concept. The person's perceptions of other people, the environment, situations and events depend on the meanings attached to these phenomena. These meanings determine how the person behaves in a given situation. People must communicate with one another to find out each other's perceptions of a particular situation. Communication also is important in learning roles. The person's ability to perform roles influences self-concept. Finally, an important feature of interactional theory is the emphasis on the person as an active participant in interactions. People are thought to evaluate communication actively from others, rather than passively accept their ideas. Moreover, they actively set goals on the basis on their

perceptions of the relevant factors in a given situation (Fawcett, 1989, pp. 16-18).

General systems theory focuses on the whole. It offers a perspective for looking at persons and nature as interacting wholes with integrated sets of properties and relations. Systems theory proposes that each system is a whole that is identifiable and is more than and different from the sum of its parts. The parts of the system are interdependent and no one part can operate without the other. A change in one part of the system affects the entire system. The parts of the system are arranged or organized in a specific manner that accommodates or facilitates the relationship of each other. This organization leads to increasing order and complexity in the system. The system, therefore, is dynamic and everchanging. The system, as a whole, interacts and exchanges energy with the environment, as a whole. The goal of the system is to maintain a continuum of balance and equilibrium (Fawcett, 1989, pp. 14-16; Leddy and Pepper, 1989, pp. 153-155).

Stress-adaptation theory views change due to person-environment interaction in terms of cause and effect. The person adjusts to changes in the environment in order to avoid disequilibrium and achieve balance or equilibrium. Stress-adaptation theory views the person as a biopsychosocial being in constant interaction with a changing environment. To cope with the changing environment, people use both innate and acquired mechanisms, which are biological, psychological and social in origin. Adaptation refers to positive

responses to environmental changes. It is the process of adjusting or modifying stimuli so that homeostasis, equilibrium or balance is maintained. Maladaptation consists of negative responses to environmental stimuli (Leddy and Pepper, 1989, pp. 155-159).

Humanistic theory recognizes the person and subjective dimensions of human experience as central to knowing and valuing. It places primacy in the value of the person. The central proposition of humanism is that the chief end of human life is to work for the well-being of others through caring, concern and commitment. The tenets of humanism are creative power, purposefulness, holism, subjectivity and interpersonal relationships. Humanism proposes that the individual person shares in creative power; behaves purposefully, not in a sequence of cause and effect; possesses intrinsic holism; strives to maintain integrity and harmony; and realizes the need for relationships.

With the proliferation of conceptual nursing models, there is an increased need to examine the models for their relevance for current nursing practice and education. Specifically, there is a need for nurse educators to analyze the models because nursing knowledge is becoming organized rapidly around and developing from these abstract models. In addition, the models prescribe the purposes to be fulfilled by nursing education as well as the curriculum and educational processes needed to achieve these educational purposes.

Various frameworks have been developed to analyze the conceptual nursing models. These include the frameworks of Dickoff et

al., 1968; Fawcett, 1989; Jacobson, 1985; Marriner, 1986; Nicoll et al., 1985; Abraham, 1985; and Stevens, 1984.

The frameworks for analysis developed by Dickoff et al. (1968) and Stevens (1984) propose that the analysis of the nursing models must consist of an internal and external criticism of the models. Internal criticism judges the internal construction of the models. Specifically, the frameworks analyze the clarity, consistency, adequacy and logical development of the models. External criticism focuses on the utility and social significance of the models. The frameworks for model analysis developed by Jacobson (1985) and Nicoll et al. (1985) employ the quantitative semantic differential method to compare and analyze externally the nursing models. These two frameworks propose a systematic, objective and rapid method for analyzing the models to facilitate the understanding of the similarities and differences of the models. Marriner's framework for model analysis (1986) focuses on examining the major concepts, the logical form and acceptance by the nursing community of the models.

Fawcett (1989) has developed the most comprehensive framework for analyzing conceptual nursing models. It is the only framework that includes an examination of the historic evolution, knowledge development and philosophical assumptions of the conceptual nursing models.

Fawcett's framework consists of a series of questions about the development, primary focus, content and areas of concern of each of the conceptual models. The questions allow for an examination of the

structure as well as the content of the model, permitting a view of its gestalt. The following questions comprise the framework (Fawcett, 1989, p. 43): What is the historical evolution of the conceptual model? What approach to the development of nursing theory does the model exemplify? Upon what assumptions is the conceptual model based? How are nursing's four metaparadigm concepts explicated in the model? What statements are made about the relationships among the four metaparadigm concepts? What areas of concern are identified by the conceptual model? Fawcett (1989) also proposed that the analysis is accomplished by "examining exactly what its author has presented, rather than by making inferences about what might have been meant by any statement or by referring to others' interpretations of the author's works" (p. 44).

Numerous critiques of the conceptual nursing models have been conducted and are evident in the nursing literature. The critiques generally have consisted of detailed examinations of the content of the models. Silva (1977) identified that "although many articles have spoken to the nature of nursing theory, few have examined the role of philosophy in the deriving of nursing knowledge. Yet, all theory begins with philosophy and is tied to some philosophical framework as the basis for understanding and assessing theory" (p. 59). Like Silva, Fawcett (1989) has asserted that examinations of the conceptual nursing models have failed to analyze the assumptions and philosophical bases of the models. "They have not examined, in any depth, their philosophical orientations or their world views of the

nature of human beings, the nature of knowledge and truth and the nature of nursing science" (Fawcett, 1989, p. 42). In addition to the limited number of studies that have examined the philosophical orientations of the conceptual nursing models, there also is no evidence in the nursing literature that any study has explored whether or not there has been a change in the espoused philosophy of nursing since the inception of the conceptual nursing models in 1952. This is surprising, because philosophy provides the holistic perspective about the beliefs, values, goals and social significance of nursing.

The word "philosophy" comes from two Greek words, "philio" and "sophia," which combined mean love of wisdom (World Book Dictionary, 1979, p. 1565). Philosophy is the pursuit of knowledge (understanding) in its broadest sense.

According to Wingo (1974, p. 7), philosophy is one of the oldest and most "noble and respected provinces of knowledge." In Western culture, philosophy is regarded as the great synthesizing and speculative discipline concerned with questions related to ontology (the nature of reality), epistemology (the nature of knowledge) and axiology (the nature of values).

Philosophy has several important aims. First, it attempts to provide a unified, systematic view of phenomena. Philosophy organizes knowledge into a unified whole and tries to find coherence and continuity in the whole realm of thought and experience. A second aim of philosophy is to establish standards and principles. Philosophy provides a foundation that can lead to the development of a reasoned

framework within which to think. It queries the worth of phenomena which then can lead to greater understanding and the formulation of priorities and goals. Finally, philosophy sharpens the ability to think clearly. It provides a way of thinking that facilitates the critical analysis of different meanings in different contexts.

A philosophical examination of nursing theory allows nurse educators to comprehend nursing in its entirety. It enables educators to reconsider the fundamental assumptions, concepts, generalizations, values and the purposes of nursing education. An understanding of philosophy provides direction to guide educators' choices as to the means and ends of education. It enables nurse educators to examine existing educational policies and curriculum and provides a framework for setting educational goals and priorities.

Summary

The review of the literature has focused on an examination of American nursing education and nursing theory development. It illustrated how the Tylerian/behaviorist curriculum development model has frozen nursing education in a training modality that is based on the traditional sciences.

During the last four decades, nurse scholars have begun to develop nursing theory as a foundation for nursing practice, research and education. This has allowed nursing to clarify its unique scope and domain and to differentiate nursing from medicine. Nursing theory development has focused on the development of numerous paradigms

or abstract conceptual models of nursing that provide diverse and distinct cognitive and philosophical orientations to nursing.

The dissatisfaction with the medical model and the development of nursing theory are prompting some nurse educators to advocate a curriculum revolution in nursing education. One of the major assumptions underlying this call for a curriculum revolution is that, as the result of nursing theory development, the philosophy of nursing has moved away from behaviorism and logical positivism. If this assumption is substantiated, a dissonance within nursing exists between nursing theory and nursing education and leaves nursing education as the last bastion of behaviorist/empiricism within the discipline. Such an incongruity severely damages nursing education's capacity to be responsive to the current health concerns of American society and demands that nurse educators explore new models for nursing educational curriculum that can prepare compassionate and scholarly nurse clinicians.

Although numerous critiques of conceptual nursing models have been conducted, few have analyzed the philosophical orientations of the models. Not one study could be found that examined whether or not there has been a change in the espoused philosophy of nursing since the inception of the conceptual nursing models in 1952.

Nursing has a social mandate to use its body of knowledge to promote and preserve the health of humankind. Philosophy is concerned with the pursuit of knowledge in its broadest sense. It attempts to provide a unified view of phenomena and to find

continuity and coherence in the whole realm of thought. It queries the worth of phenomena that can lead to greater understanding and the formulation of purpose, priorities and goals. An investigation of the philosophy of nursing could enable nurse educators to comprehend nursing in its entirety. It could assist nurse educators to explore the nature of nursing, nursing's purpose, its goals, nursing's knowledge and the values upon which nursing is based. Most importantly, an examination of nursing's philosophy could assist nursing education in becoming more responsive to changing societal needs and assist nurse educators in leading the discipline into the new millennium.

CHAPTER III

CONCEPTUAL NURSING MODELS

Introduction

This study was designed to examine the philosophical foundations of the conceptual nursing models from the 1950s to the present in order to determine the implications for nursing education. Using the methodology described in Chapter I, this chapter focuses on an analysis of the following five selected conceptual nursing models: the Psychodynamic Nursing Model proposed by Hildegard Peplau (1952); the Deliberative Nursing Process Model of Ida Jean Orlando (Pelletier) (1961); the Unitary Human Beings Model of Martha Rogers (1970); Callista Roy's Adaptation Nursing Model (1976); and Jean Watson's Human Science and Human Care Model (1988).

Peplau's Psychodynamic Nursing Model

The first nurse since Florence Nightingale to make a significant contribution to the development of a theoretical base for nursing was Hildegard E. Peplau. According to Marriner-Tomey (1989, pp. 203-204), Peplau was born September 1, 1909, in Reading, Pennsylvania. She graduated from Pottstown, Pennsylvania, Hospital School of Nursing in 1931. She received a B.A. in interpersonal psychology from Bennington College, Vermont, in 1943, an M.A. in psychiatric nursing from Teacher's College, Columbia University, New York, in 1947 and an Ed.D.

in curriculum development from Teacher's College, Columbia University, in 1953.

Peplau's professional and teaching experiences have been broad and varied. She was operating room nurse supervisor at Pottstown Hospital and later was in charge of the nursing staff at the Bennington infirmary while pursuing her undergraduate degree. She was a psychiatric clinical nurse at Bellevue and Chestnut psychiatric facilities and was in frequent contact with renowned psychiatrists, Frieda Fromm-Reichman and Harry Stack Sullivan. During World War II, Peplau worked in a neuropsychiatric hospital in London, England (George, 1985; Marriner-Tomey, 1989).

After obtaining her master's degree, Peplau was invited to develop and teach in the graduate program in psychiatric nursing at Columbia University. She remained on the faculty at Columbia for five years. In 1954, Peplau went to Rutgers University, where she developed and chaired the graduate psychiatric nursing program until her retirement in 1974. Peplau also was active in many organizations, including the World Health Organization, the National Institute for Mental Health and the Nurse Corps. She was past Executive Director and past President of the American Nurses' Association. She has served as a nursing consultant to various foreign countries and to the Surgeon General of the Air Force (George, 1985; Gregg, 1978; Sills, 1978).

Peplau's contribution to nursing theory began in 1952 with the publication of her book, Interpersonal Relations in Nursing, in which she proposed the first systematic, theoretical base for nursing.

Although Peplau published numerous journal articles in the nursing literature after 1952, this book is the primary source upon which the analysis of her conceptual nursing model was based.

Interpersonal Relations in Nursing has twelve chapters and is divided into four major parts. Part one provides the framework for the nursing model and consists of three chapters that focus on defining nursing, describing the phases of the nurse-patient relationship and delineating the roles assumed in nursing. Part two, consisting of four chapters, identifies and describes psychobiological experiences (needs, frustration, conflict and anxiety) that influence the functioning and the development of personality. Part three examines the psychological tasks encountered in the process of learning to live with people. The tasks identified are "learning to count on others, learning to delay satisfaction, identifying oneself and developing skills in participation" (p. 159). The final part of the book summarizes the opportunities that nurses have available to facilitate nursing as a therapeutic, educative, maturing force in society.

Drawing from psychological theories as well as from her own clinical experiences in psychiatric nursing, Peplau proposes a conceptual model of psychodynamic nursing. Peplau defines psychodynamic nursing as "being able to understand one's own behavior to help others identify felt difficulties, and to apply principles of human relations to the problems that arise at all levels of experience" (p. xiii). The central focus of Peplau's proposed nursing model is the nurse-patient relationship. Defining nursing as a

significant, therapeutic, interpersonal process, Peplau contends that the most important professional functions of the nurse are "those involving understanding and skill in establishing and maintaining effective therapeutic interpersonal relations with patients" (p. ix) and therefore, there is a "critical need to understand what goes on between the nurse and the patient" (p. xi). Peplau visualizes the nurse-patient relationship on a continuum, in which "at one end are two individuals with separate goals and interests and at the other end are two persons working together to solve a presenting difficulty" (pp. 9-10).

The four metaparadigm concepts of nursing--person, nursing, health and environment--are described explicitly and implicitly in Peplau's nursing model. Peplau (pp. 5-6) identifies the patient (client) of nursing as "an individual who is sick or in need of health services" and who may be located in the hospital or community. Peplau's conceptualization of person, in terms of man, assists in clarifying the client of nursing. She defines man as an "organism that lives in an unstable equilibrium (i.e., physiological, psychological, and social fluidity)" (p. 82). Thus, persons strive to reduce tension from needs, frustration, conflict and anxiety in order to be creative and productive.

Utilizing a psychodynamic perspective, Peplau defines nursing as follows:

Nursing is a significant, therapeutic, interpersonal process. It functions cooperatively with other human processes that make health possible for individuals in communities. . . . Nursing is an educative instrument, a maturing force, that aims to

promote forward movement of personality in the direction of creative, constructive, productive, personal, and community living (Peplau, 1952, p. 16).

Identifying nursing as being concerned with ways of helping people stay well, Peplau contends that "the primary goal of nursing is health" (p. 6). Health, as defined by Peplau (p. 12), is "forward movement of personality and other ongoing human processes in the direction of creative, constructive, productive, personal, and community living."

Although she views major nursing activities as being comprised of goal-directed interpersonal and technical actions, Peplau (p. 6) surmises that the interpersonal actions between the nurse and the patient are the actions predominantly responsible for obtaining the identified goal of nursing--health. She further contends that nursing actions should focus on the nurse-patient relationship, its four phases and the roles the nurse assumes throughout the relationship.

Defining the nurse-patient relationship as being on a continuum, Peplau (pp. 17-42) postulates that the nurse-patient relationship consists of four sequential, interlocking, discernible phases that are orientation, identification, exploitation and resolution. During the orientation phase, the patient and nurse meet as strangers. The patient, with a felt need, seeks assistance from the nurse to clarify problems. Once patients have understanding of what the nurse can offer in

helping them in clarifying and resolving their problems, the second phase of the nurse-patient relationship, identification, begins.

During the identification phase, the patient responds selectively to persons who offer the help needed. The patient develops a sense of belonging and identifies with the nurse. Since during this phase unresolved childhood conflicts can arise, the patient may respond to the nurse with dependent, interdependent or independent behavior (pp. 32-33). The nurse primarily uses observation and communication during this phase to clarify the expectations and perceptions of the patient. The nurse also does a self-assessment to ascertain her/his own perceptions and feelings. When the patient has identified with the nurse, who can recognize and understand the patient's unique situation, the phase of exploitation is entered.

The exploitation phase frequently is referred to as the working phase of the relationship and is comprised of the patient making full use of the nursing services offered. Conveying unconditional acceptance, trust, concern and a nonjudgmental attitude, the nurse, using effective interviewing and communication skills, helps patients explore possible underlying causes for their behavior in order to promote personality growth. As old and current needs are satisfied and higher level needs emerge, the phase of resolution or termination is entered.

Peplau (p. 41) views the resolution phase of the nurse-patient relationship as a "freeing process," in which patients have integrated the experience, have demonstrated personality growth and maturity

and are able now to enter into future relationships of their own choosing. Peplau (p. xii) asserts that as a result of the nurse-patient relationship, not only does the patient grow and mature, but so does the nurse.

Recognizing the nurse as someone who is "educated to recognize and to respond to the need for help" (p. 6), Peplau visualizes the nurse as a helper, facilitator and collaborator with the health team, who observes, communicates, records, makes judgments and assumes roles. During the development of the nurse-patient relationship, patients assume roles that are influenced by their past relationships, their mastery of previous psychological tasks, their needs and their personalities. Depending on the roles the patient assumes, the nurse assumes corresponding roles, which according to Peplau (pp. 43-70), may include the roles of stranger, resource person, teacher, leader, parent surrogate, counselor or technical expert. Each of the nursing roles are described by Peplau in detail (pp. 43-70). Peplau (p. 70) also identifies that the nursing roles often will overlap to some degree and require the nurse to recognize in what situations a given role is required.

Although the reader assumes that Peplau is defining environment from an interpersonal perspective, the metaparadigm concept of environment is not defined explicitly by Peplau. She implicitly defines the environment in her discussion of personality development as "existing forces outside the organism and in the context of culture from which mores, customs, and beliefs are acquired" (p. 163).

In addition to the major concepts described, Peplau also describes four psychobiological experiences of all persons: needs (pp. 78-81), frustration (p. 97), conflict (pp. 104-105) and anxiety (p. 119). According to Peplau, these experiences provide energy that is transformed into some form of action or behavior. She uses multiple psychological theoretical concepts and propositions to identify and explain these experiences that compel both destructive or constructive responses from both nurses and patients during the development of the nurse-patient relationship. She further asserts that an understanding of these experiences provides a basis for determining nursing goals and actions.

In analyzing how the concepts of Peplau's psychodynamic nursing model are related, Peplau predominantly identifies, defines and describes the major concepts, rather than depicting relationships among the concepts. She does, however, incorporate many propositions of the psychological theories of Sullivan, Freud, Maslow, Symonds, Miller, Fromm and Pavlov. The main propositions identified by Peplau in relation to her nursing model are concerned with the nurse-patient relationship, with its four overlapping phases, and the experiential learning that occurs for both the patient and the nurse throughout the relationship. Her propositions can be summarized in the following discussion:

Orientation to the problem leads to expression of needs and feelings, older ones that are reactivated and new ones created by

challenges in a new situation. Identification with a nurse who consistently symbolizes a helping person, providing abundant and unconditional care, is a way of meeting felt needs and overwhelming problems. When initial needs are met they are outgrown and more mature needs arise. Exploiting what a situation offers gives rise to new differentiations of the problem and to the development and improvement of skill in interpersonal relations. New goals to be achieved through personal efforts can be projected. Movement from the hospital situation to participation in community life requires resolution of nurse-patient relations and the strengthening of personality for new social interdependent relationships. When resolution occurs on the basis of lacks in a situation, needs are intensified and become longings that, together with unclear meanings of the event itself, limit the possibility of integration of the total experience (Peplau, 1952, pp. 41-42).

Most of the concepts incorporated in Peplau's conceptual nursing model are related sequentially. A time dimension is incorporated in the relationships among the concepts. The sequential relationship is evident in Peplau's phases of the nurse-patient relationship (pp. 17-42), as well as in her discussion of the psychological tasks (pp. 161-259).

To assist in describing the relationships among the major concepts, Peplau includes several diagrams (p. 10; p. 21; p. 54). The

diagram that appears to depict most comprehensively the overlapping phases of the nurse-patient relationship and the changing roles of both the patient and the nurse as they move toward maturity and health is as follows:

NURSE:	Stranger	Unconditional Mother Surrogate	Counselor Resource Person Leadership Surrogate: Mother Sibling	Adult Person	
PATIENT:	Stranger	Infant	Child	Adolescent	Adult Person
PHASES IN NURSING RELATION- SHIP:	Orientation-----Identification----- -----Exploitation----- -----Resolution				

Phases and Changing Roles in Nurse-Patient Relationships (Peplau, 1952, p. 54).

Peplau states the values and assumptions upon which she based her conceptual nursing model. Explicit values of her model include: "Accept the patient as he is" (p. 53); "All human behavior is purposeful and goal seeking" (p. 86); and "Patients have the right to be as sick as they need to be in order to get well" (p. 288). An implicit value of the model is that all persons are unique and have inherent value.

Peplau identifies that her nursing model is based on two guiding assumptions. These assumptions are:

The kind of person each nurse becomes makes a substantial difference in what each patient will learn as he is nursed throughout his experience with illness (p. xii).

Fostering personality development in the direction of maturity is a function of nursing and nursing education; it requires the use of principles and methods that permit and guide the process of grappling with everyday interpersonal problems or difficulties (p. xii).

Additional assumptions of the model include the following:

The function of personality is to grow and to develop. Nursing is a process that seeks to facilitate development of personality by aiding individuals to use those compelling forces and experiences that influence personality in ways that ensure maximum productivity (p. 73).

Since illness is an event that is experienced along with feelings that derive from older experiences but are re-enacted in the relationship of nurse to patient, the nurse-patient relationship is an opportunity for nurses to help patients to complete the unfinished psychological tasks of childhood in some degree (p. 59).

The nursing profession has legal responsibility for the effective use of nursing and for its consequences to patients (p. 6).

The major discipline used by Peplau to develop her conceptual nursing model is psychology. She relies heavily on the developmental and behavioral theories of Sullivan, Symonds, Maslow, Miller, Freud, Pavlov and Fromm who, at the time Peplau wrote her book, described behavior within the perspectives of psychoanalytic theory, the principles of social learning and the concepts of human motivation and personality development. To develop and structure her conceptual

nursing model, Peplau uses a developmental process orientation. Her incorporation of overlapping phases (stages) and tasks, sequentially evolving over a period of time to produce a more mature organism, is consistent with developmental theory.

Orlando's Deliberative Nursing Process Model

Ida Jean Orlando (Pelletier) is another significant contributor to the development of theoretical nursing knowledge. According to Fitzpatrick and Whall (1989) and Marriner-Tomey (1989), Orlando was born August 12, 1926. In 1947, she received a diploma in nursing from New York Medical College, Flower Fifth Avenue Hospital School of Nursing. She received a B.S. degree in Public Health Nursing from St. Johns University in Brooklyn, New York, in 1951, and an M.A. in Mental Health Consultation from Columbia University Teacher's College in New York in 1954. While pursuing her education, Orlando was employed as a staff nurse in obstetrical, medical, surgical and emergency nursing.

After receiving her master's degree in 1954, Orlando went to the Yale University School of Nursing in New Haven, Connecticut, for eight years. As an associate professor of mental health and psychiatric nursing at Yale, she was awarded a federal grant and became a research associate and the principal project investigator of a National Institute of Mental Health Institute of the United States Public Health Service's grant entitled "Integration of Mental Health Concepts in a Basic Curriculum." The project sought to identify those factors relevant

to the integration of psychiatric-mental health principles into the nursing curriculum.

The project consisted of an analysis of 2,000 nurse-patient interactions. Her conceptual nursing model evolved from the analysis of this four-year NIMH project and appeared in her first book, The Dynamic Nurse-Patient Relationship: Function, Process and Principles, published in 1961 (Fitzpatrick and Whall, 1989). During 1958-1961, Orlando, as an associate professor and the director of the graduate program in mental health and psychiatric nursing at Yale University, used her proposed conceptual nursing model as the foundation for the curriculum of the program. She married Robert J. Pelletier and left Yale in 1961 (George, 1990).

From 1962-1972, Orlando served as a clinical nurse consultant at McClean Hospital in Belmont, Massachusetts. In this position, she studied the interactions of nurses with clients, other nurses and other staff members and how these interactions affected the process of the nurse's help to clients. Orlando convinced the administration that an educational program for nurses was needed, whereupon McClean Hospital initiated an educational program based on her nursing model (Marriner-Tomey, 1989). In 1972, Orlando reported ten years of research at the hospital in her second book, The Discipline and Teaching of Nursing Process: An Evaluative Study.

From 1972 to 1981, Orlando lectured, served as a consultant and conducted numerous workshops across the United States. In 1981, she accepted a position of nurse educator for Metropolitan State Hospital in

Waltham, Massachusetts. In 1987, she became the assistant director for nursing education and research at Metropolitan State Hospital (Marriner-Tomey, 1989).

As indicated previously, based on her psychiatric-mental health nursing education and practice, Orlando inductively proposed her conceptual nursing model in her first book, The Dynamic Nurse-Patient Relationship, published in 1961. This first book is the source upon which the analysis of her conceptual nursing model was based. The book is divided into four chapters. Chapter one focuses on the task of the professional nurse and provides a foundational understanding of Orlando's conceptualization of nursing. Chapter two clarifies the client of nursing. The third chapter, the longest chapter, discusses Orlando's deliberative nursing process. The final chapter examines problems encountered in nursing situations and presents client case studies to illustrate how Orlando's model can be applied directly with clients in nursing practice.

The central focus of Orlando's proposed conceptual nursing model is nurse-client interaction. Orlando identifies that "since the nurse and patient are both people, they interact, and a process goes on between them" (p. 8). Orlando further states, "learning how to understand what is happening between herself and the patient is the central core of the nurse's practice and comprises the basic framework for the help she gives to patients" (p. 4).

The first of the four metaparadigm concepts, person or patient (client) is explicated in Orlando's model. Conceptualizing person as a

behaving, human organism who has needs, Orlando asserts that nurses should be concerned only with those individuals who are unable to meet their needs. Focusing on the individual person, Orlando defines the client of nursing as "a person who becomes distressed, when without help, he cannot meet his needs" (p. 11). The distress experienced by the client may result from physical limitations, adverse reactions to the setting or experiences that prevent clients from communicating their needs. Implying that nursing is dependent on medicine, Orlando states, "the doctor places the patient under the care of the nurse for either or both of the following reasons: (1) the patient cannot deal with what he needs, or (2) he cannot carry out the prescribed treatment or diagnostic plan alone" (p. 5). Consequently, the physician identifies the client for nursing. Thus, the clients of nursing, according to Orlando, are individuals, who are distressed from the inability to meet their needs, who are undergoing some form of medical treatment or supervision and who have been identified by the physician as necessitating nursing.

Orlando perceives the second metaparadigm concept, nursing, as a dynamic, deliberative, situationally unique process, in which the nurse ascertains the client's needs and initiates a process to meet these needs. She differentiates nursing in the general sense from professional nursing.

Nursing in the general sense occurs when any individual carries, in whole or part, the burden of responsibility for what the person

cannot yet or can no longer do alone. In contrast, the professional nurse, aligned with the practice of medicine, offers whatever help the patient may require to meet his needs while he is undergoing some form of medical treatment or supervision (Orlando, 1961, p. 5).

The goal of nursing "is to supply the help a patient requires in order for his needs to be met" (p. 8). Thus, "the desired outcome of nursing is an improvement in the patient's sense of well-being or a change for the better in his condition, which contributes simultaneously to the patient's physical and mental health" (p. 9).

Orlando contends that the nurse achieves the goal and desired outcome of nursing by "initiating a process which ascertains the patient's immediate need and helps to meet the immediate need directly or indirectly" (p. 8). The nurse meets the need directly when patients are unable to meet their own needs. Needs are met indirectly when the nurse helps patients obtain the services of a person, agency or resource by which their needs can be met.

Using the four basic nursing practices of observation, reporting, recording and actions carried out with and for the client, Orlando proposes that the nurse "initiates a process of helping the patient express the specific meaning of his behavior in order to ascertain his distress and helps the patient explore the distress in order to ascertain the help he requires so that his distress may be relieved" (p. 20). This process is unique for each nursing situation.

Orlando (p. 36) postulates that three basic elements comprise a nursing situation: (1) the behavior of the patient; (2) the reaction of the nurse; and (3) the nursing actions that are designed for the patient's benefit. The interaction of these three elements comprise Orlando's deliberative nursing process.

The first element of the process, the patient's behavior, is what is observed by the nurse in an immediate nurse-patient situation and is determined by the nurse's perceptions. The patient's behavior may be nonverbal, such as motor activity or physiological manifestations, or may be verbal. The presenting behavior of the patient, regardless of the form in which it appears, represents a plea for help in meeting unmet needs.

According to Orlando (p. 40), the second element of the deliberative nursing process, the nurse's reaction, consists of three aspects: (1) perceptions of the patient's behavior; (2) the thoughts stimulated by the perceptions; and (3) feelings in response to these perceptions and thoughts. In essence, the nurse, based on her/his perceptions, attaches a meaning or interpretation to the patient's behavior. Orlando cautions, however, that the "nurse does not assume that any aspect of her reaction to the patient is correct, helpful or appropriate until the nurse validates her interpretation of the patient's behavior with the patient" (p. 56).

The third element, the nurse's activity, is any action the nurse carries out. It includes only what the nurse says or does with or for the benefit of the patient. Orlando (p. 60) proposes two kinds of nursing

activities: (1) deliberative actions, which consist of those actions that ascertain or meet the patient's immediate need for help and (2) automatic actions or those activities decided on for reasons other than the patient's immediate need. Although both types of nursing activities have purpose, Orlando (p. 65) concludes that only activities carried out deliberately by the nurse are effective since only these nursing activities meet the patient's immediate need and accomplish the goal of nursing.

Orlando does not define explicitly the metaparadigm concept of health. One must assume that her definition of health is conceived as fulfilled needs or a sense of comfort and well-being. Likewise, although Orlando frequently mentions the concept of environment as an important element in the deliberative nursing process, she does not define the concept. The best attempts to define environment seem to be in Orlando's discussions of the hospital setting in which nursing occurs (p. 17) and situational conflict (p. 71). It appears that Orlando proposes that a nursing situation occurs when there is a nurse-client contact and both the nurse and client perceive, think and act in the immediate situation.

In the discussion of the metaparadigm nursing concepts, Orlando identifies, defines and describes the concepts of nursing process, behavior, immediate situation and deliberative and automatic nursing actions. Additional concepts that she identifies, defines and describes in her model include need (p. 5), observation (p. 31), situational conflict (p. 71) and dynamic (p. 36). Although Orlando identifies that the

success of implementing the deliberative nursing process is dependent on the communication ability of the nurse, she does not define or describe communication.

In analyzing how the concepts of Orlando's deliberative nursing process model are related, Orlando primarily identifies and describes the major concepts, rather than depicting relationships among the concepts. Several propositions that are evident in the nursing model include the following:

When the patient is able to meet his own needs and is able to carry out prescribed measures unaided, he is not dependent on the nurse for help (pp. 5-6).

In order for the nurse to develop and maintain the professional character of her work, she must know and be able to validate how her actions and reactions help or do not help the patient or know and be able to validate that the patient does not require her help at a given time (p. 9).

In order to meet the patient's needs, the nurse (1) initiates a process of helping the patient express the specific meaning of his behavior in order to ascertain his distress and (2) helps the patient explore the distress in order to ascertain the help he requires so that his distress may be relieved (p. 29).

The deliberative nursing process is clearly related to the nurse's professional function of helping the patient because she is in the position of knowing what is happening and whether or not she is being helpful. The nurse recognizes if she has met the patient's need for help by noting the presence or absence of improvement in his presenting behavior. In the absence of improvement, the nurse knows the patient's need has not yet been met, and, if she remains available, she starts the process all over again with whatever presenting behavior is then observed (p. 68).

If the nurse acts without resolving the initial "situational conflict" (that is, carries out an automatic activity rather than one directed toward the patient's need), a problem ensues. If the nurse first resolves the situational conflict, she forestalls the development of a problem (p. 85).

The concepts in Orlando's conceptual model are related sequentially. A time dimension is incorporated in the relationships among the concepts. One example is Orlando's deliberative nursing process. The client's action initiates the process. Orlando contends that the process by which the client acts at any given moment occurs in an automatic sequence (pp. 36-40): (1) the person perceives with any one of the five sense organs; (2) the perceptions stimulate automatic thought; (3) each thought stimulates an automatic feeling; and (4) the person acts. Based on the action of the client, the nurse reacts. The combination of perception, thought and feeling results in the nurse's immediate reaction. The nurse's immediate reaction then precipitates the client to act and an interactive process occurs between the nurse and client, with each redefining the actions and reactions of the other. Another sequential relationship that can be identified in the model is Orlando's contention that the inability of persons to meet their own needs or carry out prescribed medical measures must precede the requirement for nursing.

The majority of Orlando's assumptions and values are implicit in the model. Two explicit assumptions are: (1) it is safe to assume that patients become distressed when, without help, they cannot meet their

needs (p. 11) and (2) it is assumed that the nurse's intention is to be of help (p. 70). Some of the implicit assumptions include the following:

Since a person who is ill is likely to have his sense of adequacy or well-being disrupted, it logically follows that nursing must have a mental health orientation, regardless of the patient's illness (p. vii).

Professional activities are designed and carried out for the benefit of the patient (p. 71).

The outcome of a nursing situation depends on the action of the nurse (p. 71).

Nursing is a deliberate process that can be elucidated.

All behavior is meaningful. It is the nurse's responsibility to understand the meaning of the patient's behavior.

The nurse cannot be separated as an individual from the act of care; the nurse is an integral part of care.

One value implicit in Orlando's conceptual model is that each person, as well as each situation in which persons interact, is unique. Also, it appears that Orlando values the nurse's use of intuition and subjectivity in nursing practice.

Orlando fails to identify any theoretical sources for the development of her conceptual nursing model. Although she acknowledges the help and encouragement of two nurses, Wald and Wiedenbach, in the preface of the book (p. ix), she, nevertheless, fails to cite any other knowledge sources on which her model might be based.

It is interesting to note that not one of Orlando's subsequent publications includes a bibliography.

The major disciplines that Orlando seems to use in the development of her model are sociology, psychology and medicine. It would appear that Orlando's model relies heavily on George Herbert Mead's interactional theory proposed in his book, Mind, Self, and Society (1934). In this book, Mead introduces and relates the major concepts of interactional theory (act, react, interact, perception, interpersonal relationship, symbolic environment, and definition of the situation). Similarly, some of Mead's assumptions seem to be evident in Orlando's model. These include the following assumptions: (1) a person is an actor as well as a reactor; (2) the basic unit of observation is interaction; (3) persons live in a symbolic as well as a physical environment and are stimulated to act; and (4) persons have the capacity to learn meanings through communication and interaction. Orlando uses an interactional process orientation to develop and structure her model. Her view of nursing as an interaction process, with the focus on understanding the interaction between nurse and client, is consistent with an interactional process orientation.

Rogers's Model of Unitary Human Beings

According to Marriner-Tomey (1989) and Meleis (1991), Martha E. Rogers is a pioneer of nursing who envisioned a science of nursing in the late 1950s and 1960s. She deliberately set out to develop a

conceptual model of nursing when she realized that there was no body of knowledge that was unique to nursing.

Rogers was born May 12, 1914, in Dallas, Texas. She began her collegiate education at the University of Tennessee in Knoxville, where she studied science from 1931 to 1933. In 1933, she changed to nursing and received her nursing diploma from Knoxville General Hospital School of Nursing in 1936. In 1937, she received a B.S. degree from George Peabody College in Nashville. Her other degrees include an M.A. in public health nursing supervision from Teacher's College, Columbia University, New York in 1945, and an M.P.H. in 1952 and a Sc.D. in 1954, both from Johns Hopkins University in Baltimore (George, 1990).

Upon receiving her Ph.D., Rogers became the head of the nursing program at New York University. One of Rogers's first activities was to teach doctoral nursing student seminars (Meleis, 1991, p. 316). She noted that the dissertation students in nursing were part of dissertation seminars in the education department. Rogers's belief in the uniqueness of nursing and its science prompted her to design a separate seminar for the nursing students. She quickly realized, however, that the parameters of nursing's unique knowledge had not been identified. "The development of nursing's unique knowledge became Rogers's mission in nursing" (Meleis, 1991, p. 316).

From 1954 to 1975, Rogers was Professor and Head of the Division of Nursing at New York University. In 1979, she became

Professor Emerita. Her name has become synonymous with New York University's nursing program.

Rogers's early nursing practice was in rural public health nursing in Michigan and in visiting health nurse supervision, education and practice in Connecticut. She also established the Visiting Nurse Service of Phoenix, Arizona.

Rogers has received numerous awards, honors and citations, both nationally and internationally, including three honorary doctorates. She continues to lecture extensively on nursing. Her contributions to the nursing literature are cited frequently. Her conceptual nursing model has served as the basis for the other conceptual nursing models proposed by Fitzpatrick (1983), Newman (1986) and Parse (1981).

Rogers advocates diversity and illustrates it in her personal life through her love of music and science fiction; in her writing, which incorporates philosophy, music, futurology and physics; and the special talent with which she combines wit, humor, science and art in speaking about nursing. "Her colleagues consider her one of the most original thinkers in nursing and one of the few nurse scholars who will transcend her time and the profession" (Fitzpatrick and Whall, 1989, p. 245).

Rogers's early grounding in the liberal arts and sciences is apparent in the origin of her conceptual nursing model and its ongoing development. Rogers's recognition of the need for an organized body of nursing knowledge was evident in her early writings on nursing education, especially in the books, Educational Revolution in Nursing

(Rogers, 1961) and Reveille in Nursing (Rogers, 1964). Her conceptual model of nursing, however, was first presented formally in 1970 in An Introduction to the Theoretical Basis of Nursing.

Further development and refinement of the model have been presented by Rogers in numerous national meetings and a series of videotapes (1980). She noted that the refinements of her model were undertaken in an attempt to clarify the meaning of essential ideas and to eliminate misinterpretation of certain terms. For example, "man" was changed to "unitary man" and finally to "unitary human beings" to enhance clarity and to avoid charges of sexist language (Rogers, 1986). Although refinements to Rogers's nursing model have been made, her 1970 book still remains the primary source for the analysis of her conceptual model.

An Introduction to the Theoretical Basis of Nursing (1970) consists of three units and seventeen chapters. Unit I, consisting of five chapters, provides an historic review of human evolution through time and examines contemporary thoughts and theories about humans. Unit II contains five chapters and presents the assumptions and theoretical assertions that underlie Rogers's conceptual nursing model. Unit III proposes Rogers's conceptual nursing model of unitary human beings.

The central focus of Rogers's conceptual model is unitary human beings and their environments. Human beings and their environments are regarded as irreducible wholes that cannot be understood when they are reduced to particulars. Rogers defines the unitary human being as "an irreducible four-dimensional energy field identified by

pattern and manifesting characteristics that are different from those of the parts and that cannot be predicted from knowledge of the parts" (p. 3). Environment is defined exactly the same way. Rogers proposes that each environmental field is specific to its given human field and that both change continuously, mutually and creatively. The human and the environmental fields are infinite and integral with one another. The definitions of unitary human beings and their environments identify the four concepts of Rogers's conceptual model of unitary human beings: energy fields, openness, pattern and four-dimensionality.

The concept of energy field constitutes the fundamental unit of both the living and nonliving. Field is a unifying concept and energy signifies the dynamic nature of the field. Rogers proposes that the concept of energy field represents a means of perceiving people and their respective environments as irreducible wholes.

Human and environmental fields are not biological fields or physical fields, or social or psychological fields. Neither are human and environmental fields a summation of biological, physical, social or psychological fields. This is not a denial of other fields. Rather, it is to make clear that human and environmental fields have their own identity and are not to be confused with parts (Rogers, 1970, p. 90).

Rogers characterizes unitary human beings and their environments as open systems. She maintains that there is no variance

in the openness of the human and environmental energy fields. "Energy fields are open--not a little bit or sometimes, but continuously" (p. 90).

According to Rogers, energy fields have pattern. Pattern is defined as "the distinguishing characteristic of an energy field perceived as a single wave" (p. 61). The nature of the pattern changes continuously and innovatively. It is an abstraction that cannot be seen. Instead, manifestations of field patterning are observable events in the real world. The pattern of an energy field is conceptualized as a wave phenomenon. "A multiplicity of waves characterize the universe. Light waves, sound waves, thermal waves, atomic waves, gravity waves flow in rhythmic patterns" (p. 101). Since energy field patterns change continuously, Rogers believes that there is no repetition in human life and no regression to former states or stages.

Rogers describes the human and environmental energy fields as four-dimensional. Four-dimensionality is a nonlinear domain without spatial or temporal attributes, with continuously fluctuating imaginary boundaries.

Originally in 1970, Rogers formulated four mutually exclusive principles of homeodynamics to state explicitly her ideas about human and environmental energy field patterns--resonancy, helicy, reciprocity and synchrony. In the 1980s, the principles of reciprocity and synchrony were eliminated and replaced by the principle of integrality because the terms reciprocity and synchrony lead to false interpretation of separation between the human and environmental energy fields (Rogers, 1986).

The principles of homeodynamics postulate a way of perceiving unitary human beings and predict the nature in which they evolve. Rogers contends that pattern is the key concept of these principles.

The principle of resonancy delineates the direction of evolutionary change in energy field patterns. Resonancy is the "continuous change from lower to higher frequency waves in human and environmental fields" (p. 96). The principle of helicy speaks to the continuous change that characterizes human and energy fields. It describes spiral development, rather than a cyclic motion. Helicy is "the continuous, innovative, probabilistic increasing diversity of human and environmental field patterns characterized by nonrepeating rhythmicities" (p. 102). The principle of integrality emphasizes the nature of the relationship between the human and environmental fields. Integrality is the continuous mutual human and environmental field process.

Rogers asserts that human beings are the center of nursing's purpose. "The concern of nursing is with man in his entirety, his wholeness" (p. 3). Humans are viewed as "unified wholes possessing integrity and manifesting wholeness, openness, unidirectionality, pattern, organization, sentience and thought" (p. 90).

Rogers regards nursing as a learned profession that is both a science and an art.

Nursing is a humanistic science dedicated to compassionate concern for maintaining and promoting health, preventing illness,

and caring for and rehabilitaing the sick and disabled. The science of nursing is directed toward describing the life process in man and toward explaining and predicting the nature and direction of its development (p. vii).

Rogers describes nursing's mission as social. "Nursing exists to serve people. Its direct and over-riding responsibility is to society. Nursing is an outgrowth of concern for human health and welfare" (p. 88). This social mission of nursing also is evident in Rogers's statement concerning the scope of nursing's service to people. "Nursing is concerned with people--all people--well and sick, rich and poor, young and old. The arenas of nursing's services extend into all areas where there are people: at home, school, work, play; in hospital, nursing home and clinic; on this planet and now moving into outer space" (p. 86).

The distinction between nursing and other disciplines, according to Rogers, lies in the phenomenon of central interest to each, in what is known, rather than what is done in practice. From the perspective of Rogers's conceptual nursing model, the phenomenon of central concern to nursing is unitary human beings and their environments.

Nursing's long-established concern with human beings and their world is a natural forerunner of an organized abstract system encompassing people and their environment. The irreducible nature of humans as energy fields, different than the sum of their parts and integral with their respective environmental fields,

differentiates nursing from other sciences and identifies nursing's focus (p. 3).

The goal of nursing, identified by Rogers, is to "promote symphonic interaction between man and environment, to strengthen the coherence and integrity of the human field and to direct and redirect patterning of the human and environmental fields for the realization of maximum health potential" (p. 122). Rogers envisions the nursing process as following the science of nursing. "Broad principles are put together in novel ways to help explain a wide range of events and multiplicity of individual differences. Action, based on predictions arising out of intellectual skill in the merging of scientific principles, becomes underwritten by intellectual judgments" (pp. 87-88).

Rogers maintains that nursing must focus on the person as a unified whole and emphasize individualized nursing care. She claims that this is necessary to help people achieve their maximum potential in a positive fashion. The nurse, as an environmental component, must assess each individual and determine the range of behaviors that are normal for the individual. Diversity among individuals always must be taken into account, for it has distinct implications for what will be done and how it will be done. Thus, nursing intervention always is novel, because it is based on the needs of the individual. "Judicious and wise identification of intervention measures consonant with the diagnostic pattern and purposes to be achieved in any given situation requires the imaginative pulling together of nursing knowledge in new ways

according to the particular needs of the individual" (p. 125). Rogers also notes that alternative forms of healing and noninvasive modalities, such as therapeutic touch, imagery, meditation and humor, are consistent with her conceptual model (pp. 125-127). Rogers regards the nursing process as a modality for implementation of nursing knowledge, but lacking in any substance of its own. She does not specify a particular nursing process.

Rogers does not define explicitly the metaparadigm concept of health. This is due to her contention that health is an expression of the life process and a value defined by cultures and individuals. "Health and illness, however defined, are expressions of the process of life. They are not dichotomous, but continuous and part of the same continuum. They are arbitrarily defined, culturally infused and value laden" (p. 85). Although Rogers implies that health could be conceived as greater coherence that evolves from human-energy fields that are novel, emerging, and more diverse in pattern and organization, she proposes that there are no norms of health.

Rogers defines and describes the four metaparadigm concepts (person, environment, health, nursing) sufficiently. She also depicts numerous relationships among the concepts. For example, Rogers repeatedly links the concepts of person and environment. This linkage is most evident in the principles of homeodynamics. The linkage of the concepts of person, environment and nursing is illustrated in the following proposition: "Nursing's long-established concern with human beings and their world is a natural forerunner of an organized abstract

system encompassing people and their environments" (p. 3).

Statements linking all four metaparadigm concepts can be found in her discussions of the purposes of nursing. Chapter 15 of her book, "Formulating Testable Hypotheses," contains additional propositions that can be developed into hypotheses for research. Several examples of the propositions are as follows:

With repatterning, subsequent interaction between human and environmental fields is revised and new patterning in both man and environment emerge (p. 98).

The inseparability of man and environment predicts that sequential changes in the life process are continuous, probabilistic revisions occurring out of the interactions of man and environment (p. 99).

Change in the human field depends only upon the state of the human field and the simultaneous state of the environmental field at any given point in space and time (p. 98).

Change in human behavior will be determined by the simultaneous interaction of the actual state of the human field and the actual state of the environmental field at a given point in space and time (p. 99).

Change grows out of the mutual interaction of man and environment along a spiralling axis bound in space and time (p. 101).

The concepts in Rogers's conceptual nursing model are related categorically, sequentially and determinantly, indicating necessary as well as sufficient relationships.

Rogers identifies the following five assumptions upon which her model is based:

Man is a unified whole possessing his own integrity and manifesting characteristics more than and different from the sum of his parts (p. 47).

Man and environment are continuously exchanging matter and energy with one another (p. 54).

The life process evolves irreversibly and unidirectionally along the space-time continuum (p. 59).

Pattern and organization identify man and reflect his innovative wholeness (p. 65).

Man is characterized by the capacity for abstraction and imagery, language and thought, sensation and emotion (p. 73).

These five assumptions and other values in the model indicate that Rogers views nursing as a legitimate science and an art that must base its practice on a body of knowledge that has been validated by research. "Historically, the term 'nursing' has been used as a verb signifying 'to do.' When nursing is perceived as a science, the term 'nursing' becomes a noun signifying 'a body of abstract knowledge'" (p. 1).

The assumptions also indicate that Rogers values a unitary view of the person and the environment. Rogers points out that this perspective of the person identifies nursing as a unique discipline. Rogers also emphasizes that her view of health is socially defined. This suggests that she expects specific goals for nursing intervention to be based on the values of society, not on those of the nurse alone. Moreover, Rogers's discussion of nursing intervention indicates that she

values individualized care for each person. The fifth assumption, describing person as capable of abstract imagery and thought, indicates that her model is a humanistic, not a mechanistic, model and that human beings should not be likened to machines.

Rogers developed her conceptual nursing model from a number of disciplines. Her model is based on knowledge from anthropology, psychology, sociology, astronomy, religion, philosophy, history, biology, modern physics, mathematics, music and literature. Rogers (p. 30) identifies that her model was most influenced by Florence Nightingale (1859), Einstein's theory of relativity (1961), Burr and Northrop's electrodynamic theory of life (1935) and Von Bertalanffy's general systems theory (1950). For example, Nightingale's emphasis on placing humans within the natural world influenced Rogers to emphasize human-environment relationships. Rogers's emphasis on the constant interaction between human beings and environment, the interrelationships of the energy field and the openness of both to continuous exchange of matter and energy are consistent with Bertalanffy's (1960) definition of an open system. Rogers also draws on the assumptions and concepts of general systems theory in two other ways: the unitary human being as an organization of the whole, which is more than the sum of the parts; and the individuality and uniqueness of human beings as reflected in this pattern and organization and in their wholeness. Rogers also uses the concept of negentropy, a general systems concept, to develop her principle of helicy.

Physics and electromagnetic theory provide some of the basic premises and concepts of Rogers's theory. The energy fields of unitary human being and environment are dynamic, are irreducible, are unbound, extend into infinity and are identifiable by waves and patterns. Physics also provides the rationale for the existence of energy fields and for understanding the principle of resonancy.

The electrodynamic theory of life (Burr and Northrop, 1935) was used by Rogers as the link between physics and life processes in nursing. Rogers used the tenets of evolution theory to explain the increase in diversity, differentiation, complexity and patterning in developing human and environmental behaviors.

Unitary human beings are always in the process of "becoming" rather than "being"; at any point, they are more than they have been because all their previous actions, experiences, interactions and being are incorporated into their present beings. A unitary human being is a homeodynamic being and is not homeostatic (p. 3).

The process, therefore, is evolutionary toward more complexity.

Rogers also was influenced by early Greek philosophers, particularly Plato, as well as modern philosophers. Her writings draw on Chardin (1961), Polanyi (1958) and Lewin (1964). In addition, she drew on her vast fiction reading and interest in classical music to describe her conceptual model.

Rogers uses a dialectic method of reasoning in developing her conceptual nursing model. She employs a deductive approach in model development. "A conceptual system of nursing must result from a multiplicity of knowledges from many sources that flow in novel ways to create a kaleidoscope of potentialities" (p. 3).

To develop and structure her conceptual nursing model, Rogers uses a combination of systems and developmental process orientations. The basic characteristics of a systems approach to the development of Rogers's conceptual model have been discussed previously. Rogers also places major emphasis on human development in the form of changes in the human field pattern. The developmental characteristics of growth, development, maturation, change and the direction of change are evident in Rogers's principles of helicy and resonancy.

Roy's Adaptation Nursing Model

According to Marriner-Tomey (1989, pp. 325-326), Callista Roy, a member of the Sisters of Saint Joseph of Carondelet, was born October 14, 1939, in Los Angeles, California. She received a B.A. in Nursing from Mount St. Mary's College, Los Angeles, in 1963 and an M.S. in Pediatric Nursing from the University of California, Los Angeles, in 1966. She also received an M.A. in Sociology in 1975 and a Ph.D. in Sociology in 1977 from the University of California, Los Angeles. Her studies in sociology focused on the concepts of role theory, role systems, adaptation and self (Roy, 1983).

Roy initiated the development of her adaptation nursing conceptual model in 1964 when she was a graduate nursing student at U.C.L.A. In a nursing seminar with Dorothy Johnson, Roy was challenged to develop a conceptual model for nursing. Based on her clinical experiences as a pediatric nurse, Roy noted the great resiliency of children and their ability to adapt in response to major physical and psychological changes. Impressed by this adaptive response, Roy perceived adaptation as a viable theoretical framework for nursing (Roy, 1976). Beginning with general systems theory, Roy added the theory of adaptation, developed by Harry Helson (1964), to the conceptualization of her nursing model. As she developed the model, she expanded the model to include knowledge from other experts in the area of adaptation and nursing (Roy, 1976).

Roy began implementing her nursing model in 1968 when Mount St. Mary's College adopted her model as the philosophical foundation for its baccalaureate nursing curriculum. Roy was an associate professor and chairperson of the Department of Nursing at Mount St. Mary's College until 1982. From 1983 to 1985, she was a Robert Wood Johnson Post Doctoral Fellow at the University of California, San Francisco, and assumed the position of clinical nurse scholar in neuroscience. During this time, she conducted research on nursing interventions for cognitive recovery in clients with head injuries and on the use of her conceptual nursing model in clinical decision-making. In 1988, Roy accepted the newly created position of graduate faculty nurse theorist at Boston College School of Nursing (Sisca, 1989).

Roy has presented numerous lectures and workshops focusing on her nursing adaptation model. She has served on the editorial board of the nursing journal, Nurse Educator, and as a manuscript reviewer for Prentice-Hall Publishers. She has been active in the California Nurses' Association and has served on the Nursing Theories Conference Group. She held the position of the Chairperson of the California Baccalaureate and Higher Degree Programs in Nursing from 1973 to 1974. Roy is a member of Sigma Theta Tau National Honor Society and received the organization's National Founder's Award for Excellence for fostering professional nursing standards in 1981.

Roy is a prolific, published writer. She initially introduced selected aspects of her adaptation nursing model in a series of articles in Nursing Outlook (1970; 1971; 1973; 1976). In 1976, she proposed the entire nursing adaptation model in the book, Introduction to Nursing: An Adaptation Model. Although refinements and revisions of the adaptation model have been published in two subsequent books (Roy, 1984; Andrews and Roy, 1986), her original book provided the source for the analysis of her conceptual model.

Introduction to Nursing: An Adaptation Model (1976) consists of six parts, with a total of twenty-six chapters. Part one consists of two chapters and presents the essential elements of Roy's adaptation nursing model. Parts two through five, consisting of twenty-three chapters, describe how to use Roy's model in providing nursing care for clients with health concerns related to the four adaptive modes of physiological needs, self-concept, role function and interdependence.

Part six focuses on how to implement the model with clients from minority cultures who have adaptive problems. Contained within the appendices of the book are examples of nursing assessment tools and a typology of nursing interventions that direct the use of Roy's model in clinical nursing practice.

Roy's conceptual nursing model focuses on the concept of adaptation. The four metaparadigm concepts of person, health, nursing and environment all are interrelated to this central concept. In essence, the model proposes that a person continually interacts with stimuli from the environment and attempts to adapt to these stimuli. Nursing has a unique goal to assist persons in the adaptive effort by managing the environment. The result is the attainment of an optimum level of health.

The metaparadigm concept of person is emphasized in Roy's model. According to Roy, a person, who she refers to as man, is a "biopsychosocial being in constant interaction with a changing environment" (p. 11). Roy conceptualizes person, the recipient of nursing care, as a living, complex, adaptive system with two internal subsystems (the cognator and the regulator) striving to maintain adaptation in four adaptive modes: physiological needs, self-concept, role function and interdependence. The person, as a living system, is a whole, comprised of subsystems that function as a unity for some purpose.

The nature of man includes a biological level with components

such as anatomical parts which function as a whole to contribute the biological constancy of man. . . . At the same time, man has a psychological nature. His various biological systems, headed by the complex nervous system, together provide meaningful behavior. This behavior is organized in such a way that man has constancy in his life of perceiving, learning, and acting. . . . Lastly, man is a social being and his behavior is related to the behavior of others on group levels such as family, community, and work groups. This total being that man is interacts with a constantly changing environment (Roy, 1976, p. 11).

To cope with a changing environment, Roy (pp. 11-12) identifies that persons have certain innate (genetically determined) and acquired (learned) mechanisms. These mechanisms are biological, psychological and social in origin and are controlled by two coping subsystems--a regulator subsystem and a cognator subsystem. The regulator subsystem is a "subsystem coping mechanism which responds automatically through neural-endocrine processes. The cognator is a subsystem which responds through complex processes of perception, information processing, learning, judgment and emotion" (p. 12). A person's positive response to a changing environment is known as the process of adaptation. Consistent with Helson's theory of adaptation, Roy (pp. 12-14) proposes that a person's ability to respond positively or adapt depends on two factors: (1) the degree of the change taking

place which Roy calls focal stimuli and (2) the state of the person coping with the change or the adaptive level.

Roy (pp. 14-16) also proposes that a person, as an adaptive system, is comprised of four adaptive modes: physiologic, self-concept, role function and interdependence. "An adaptive mode is a way or method of doing or acting, a form of adaptation that is manifested in behavior" (p. 14). Roy concludes that the four modes of adapting are related to needs and that basic needs underlie each adaptive mode.

The physiologic mode includes a person's need for physiologic integrity. It consists of the physiological needs of exercise and rest, nutrition, elimination, fluid and electrolytes, oxygen, circulation and temperature regulation (pp. 15-16). The self-concept adaptive mode arises out of perception and the need for psychic integrity. It is comprised of the physical self, personal self and the interpersonal self (p. 16). Role function consists of the person's need to regulate performance of duties in relation to others and the expectations of society (p. 16). The fourth adaptive mode, interdependence, represents a person's need for balance between dependence and interdependence (p. 17). Roy cautions that although the adaptive modes make it possible for the nurse to view a person from a variety of viewpoints and divide the person up for analysis, the nurse "must keep in mind the complexity and interrelatedness of the total person" (p. 17).

Roy (p. 23) proposes that persons, as individuals, as members of families and as members of communities, are the clients of nursing. "The recipient of nursing is the person in the dimension of his life

related to health and illness. Thus, the patient may be ill or may be potentially ill and require preventive services. He may be adapting positively or not" (p. 23).

The metaparadigm concept of nursing is explicated in Roy's model. She defines nursing as follows:

Nursing is a scientific discipline which is practice oriented. Nursing has a body of knowledge and the purpose of that knowledge is to provide a service to people. In a general sense, nursing is a theoretical system of knowledge which prescribes a process of analysis and action related to the care of the ill or potentially ill person (Roy, 1976, p. 4).

Adaptation nursing, on the other hand, "views man as a biopsychosocial being with modes of adapting to a changing environment, and which acts through a nursing process to promote man's adaptation to each of these modes in situations of health and illness" (p. 19).

Roy (pp. 22-23) distinguishes nursing from medicine by asserting that medicine focuses on the biological system and the person's disease. Nursing, however, focuses on the person as a total being who responds to internal and external environmental stimuli. The distinction between medicine and nursing is clarified further when Roy compares the goals of medicine and nursing.

The physician's goal is to move the patient along the continuum from illness to health. The goal of nursing is to promote adaptation, by use of the nursing process, in each of the adaptive modes, thus contributing to the health and quality of life of individuals and society (p. 5).

Roy contends that nursing's goal frees the person to respond to other stimuli. This freeing of energy makes healing and health possible.

The Roy adaptation nursing model includes a detailed nursing process. The nursing process is "a problem-solving procedure for gathering data, identifying problems, selecting and implementing interventions and evaluating results" (p. 19). The nursing process proposed by Roy includes six interrelated steps: assessment of behaviors; assessment of influencing factors (stimuli); nursing diagnosis (problem identification); goal setting; selection and implementation of intervention approaches; and evaluation.

Assessment of behaviors, or what Roy calls first-level assessment, involves the collection of data related to the person's internal and external behavior. Behavior of particular interest to the nurse is "the patient's responses to environmental changes that require further adaptive responses" (p. 28). The methods of assessment used by the nurse include skillful direct observations of the client; accurate measurement of behavioral responses; communication and interviewing; and validation of the nurse's observations with the client (pp. 28-30).

Assessment of influencing factors, or second-level assessment, focuses on the assessment of factors that influence the behaviors of concern to the nurse and the person. Ineffective behaviors are of interest because the nurse desires to change these behaviors to adaptive behaviors. Similarly, adaptive behaviors are of interest because the nurse wants to maintain or enhance these behaviors. This step of the nursing process also requires the nurse to establish priorities of the behaviors to be assessed. Roy based her priorities on the goals of each adaptive mode and offered the following hierarchy of importance for assessment of behaviors (pp. 30-32): (1) those behaviors that threaten survival; (2) those behaviors that affect growth; (3) those behaviors that affect reproduction; and (4) those behaviors that affect mastery or the attainment of the full potential of the person.

Once priorities have been established, second-level assessment focuses on the identification of the focal, contextual and residual stimuli that contribute to or inhibit adaptation. Focal stimuli include those stimuli "most immediately confronting the person and those to which the person must make an adaptive response, that is, the factor that precipitates the behavior" (p. 31). Contextual stimuli are "all other stimuli present that contribute to the behavior caused or precipitated by the focal stimuli" (p. 31). Residual stimuli include beliefs, attitudes or traits. They are stimuli that may be affecting behavior, but cannot be validated (p. 32).

The next step of the nursing process is the formulation of a nursing diagnosis or problem identification. A nursing diagnosis is defined as "the summary statement or conclusion based on the data gathered in the nursing assessment process" (p. 33). The diagnosis is a hypothesis that relates the person's adaptive or maladaptive behavior with the most relevant influencing factors.

The fourth step of Roy's nursing process is goal setting. The goals of nursing care are based on the data from the first and second-level assessments and the nursing diagnosis. The goals are stated as behavioral outcomes of the nurse's interventions (p. 35).

The fifth step of the nursing process is the selection and implementation of nursing interventions or nursing actions. This step involves management of stimuli that have been identified as influencing the person's adaptation. Management of the stimuli encompasses increasing, decreasing, maintaining, removing or altering relevant focal or contextual stimuli. A typology of nursing interventions based on the Roy adaptation nursing model is included in the appendix of the book.

The sixth and final step of the nursing process is an evaluation of the effectiveness of the nursing interventions. The criteria for effectiveness are whether the desired goals were achieved or whether the person exhibited adaptive behavior after the nursing interventions were implemented. Once evaluation of goal achievement has been determined, Roy proposes that the nurse returns to assessment and the nursing process begins again, indicating the cyclic nature of nursing

process. "When the nurse determines the effects of her interventions, she returns to the first step of the nursing process" (p. 37).

Roy defines the metaparadigm concept of health in terms of the health-illness continuum.

One dimension of man's life is health and illness. The states of varying degrees of health and illness can be represented by a continuous line called the health-illness continuum. As man moves along the continuum, he will encounter problems to which he must adapt. Thus, health and illness are one inevitable dimension of man's total life experience and nursing is concerned with this dimension (Roy, 1976, p. 18).

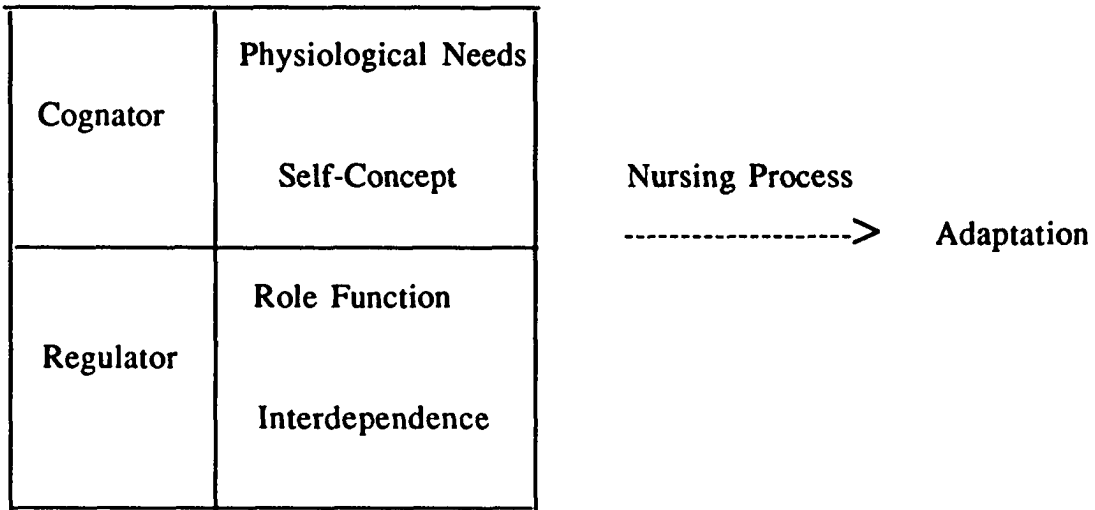
Roy contends that when persons are unable to adapt, illness results. Health ensues when persons continually adapt. As people adapt to stimuli, they are free to respond to other stimuli. This freeing of energy can promote health and healing (p. 18).

Although the metaparadigm concept of environment is viewed as a determinant concept in Roy's conceptual nursing model, it is not well-defined. One must assume that Roy broadly defines environment as all the surrounding focal, contextual and residual stimuli that affect the development and behavior of persons. The environment seems to be the input into the person's adaptive system, precipitating a change to which the person must adapt.

In addition to the four paradigm nursing concepts, Roy identifies, defines, describes and relates numerous other concepts in her adaptation nursing model. Additional concepts include need (p. 15), behavior (p. 25), adaptation (p. 12), adaptive response (p. 13), maladaptive response (p. 13), adaptive mechanisms (p. 11), adaptation level (p. 13), adaptive modes (p.14), adaptation problems (p. 15) and stimuli (pp. 30-32).

Roy's model includes numerous propositions from the disciplines of physiology, psychology and sociology to relate the nursing metaparadigm concepts. Her list of scientific assumptions related to adaptation actually are propositions that define, describe and relate the major concepts of the model. One example of a proposition that relates the four metaparadigm nursing concepts is the following proposition: "Persons or adaptive systems interact with the environment and move toward the goal of adaptation and health. The nursing process influences this movement" (p. 5). Also, Roy's detailed description of the nursing process contains numerous propositions. The following diagram has been developed by Roy to clarify the relationship among some of the major concepts of her adaptation model (p. 38):

Relationship Among the Concepts of Roy's Adaptation Nursing Model



The propositions contained within the model relate the major concepts sequentially, determinantly and categorically with other concepts, allowing for sufficient and causal relationships among the concepts.

Roy integrates eight scientific assumptions about the nature of person and the process of adaptability into her conceptual nursing model. These assumptions are based on Helson's Adaptation Level Theory and include the following:

The person is a biopsychosocial being.

The person is in constant interaction with a changing environment.

To cope with a changing environment, the person uses both innate and acquired mechanisms which are biological, psychological and social in origin.

Health and illness are one inevitable dimension of the person's life.

To respond positively to environmental changes, the person must adapt.

Adaptation is a function of the stimulus a person is exposed to and his/her adaptation level.

The person's adaptation level is such that it comprises a zone indicating a range of stimulation that will lead to a positive response.

The person is conceptualized as having four modes of adaptation: physiological needs, self-concept, role function and interdependent relations.

The philosophic assumptions of Roy's model are identified less clearly. Four implicit assumptions include: (1) nursing's concern with the person as a total being in the areas of health and illness is a socially significant activity; (2) the nursing goal of supporting and promoting patient adaptation is important to patient welfare; (3) promoting the process of adaptation is assumed to conserve patient energy; thus nursing makes an important contribution to the health of society by making energy available for the healing process; and (4) nursing is unique because it focuses on the patient as a person adapting to those stimuli present as a result of his or her position on the health-illness continuum.

Roy's adaptation conceptual nursing model is a synthesis of knowledge developed primarily outside the domain of nursing and redefined within the context of nursing. Roy (pp. 11-15) acknowledges

that her conceptual model derives from knowledge from the disciplines of physiology, biology, sociology, psychology, neurology and anthropology, in addition to nursing knowledge contributed by such nurse theorists as Nightingale, Orlando and Johnson. The major portion of her model, however, was derived from Harry Helson's Adaptation Level Theory, developed in 1964. Helson, a physiological psychologist, initially developed his adaptation theory in the field of visual perception in which he examined the adaptation of rods and cones of the eye to light. He observed that adaptive responses were a function of the stimulus and the adaptation level of the organism. He postulated that the adaptation level was determined by the pooled effect of three classes of stimuli: (1) focal stimuli or stimuli directly confronting the person; (2) background or contextual stimuli, including all other stimuli present; and (3) residual stimuli or those factors that may be relevant, but cannot be validated. Helson also developed the concept of adaptation level zone, which determines whether a stimulus will elicit a positive or negative response. Helson then expanded the testing of his theory to the field of social interaction (Roy, 1976).

Roy combined Helson's work with Rappaport's definition of a system to develop her conceptualization of person as an adaptive system. She developed and further refined her adaptation nursing model by incorporating the concepts and propositions of other experts in the area of adaptation, such as Dohrenwend (1961), Lazarus (1966), Mechanic (1970) and Selye (1956; 1974).

Although Helson's theory appears to be the impetus for the central focus of Roy's model, she also was influenced by her graduate nursing mentor and teacher, Dorothy Johnson. Johnson had developed a nursing model that conceptualized person as a behavioral system, with seven subsystems. Roy's person is conceived as an adaptive system, with two subsystems. Similarities between the two models also can be found with the goals of nursing, the nursing process and the client of nursing (Roy, 1976, pp. 9-10). Roy's doctoral education in sociology is credited as having influenced her development of the role, interdependence and self-concept adaptive modes. Many other scholars from multiple disciplines are cited by Roy in the discussion of her model. Her numerous citations and references indicate that she used primarily a deductive approach to develop her model.

Roy (p. 9) states that she employed a synthesis of concepts and propositions from the stress-adaptation, systems and interactional paradigms to organize her model. The stress-adaptation process orientation clearly is evident in the structure of Roy's model as indicated by her emphasis on adaptation and the conceptualization of the four metaparadigm nursing concepts within the context of adaptation. Systems theory is apparent in Roy's view of person as an open adaptive system, with two subsystems. Many of the other elements of systems theory are not included. The role function adaptive mode is consistent with interactional theory, but other interactional concepts and propositions are difficult to identify.

Watson's Human Science and Human Care Model

According to Marriner-Tomey (1989), Jean Watson was born July 21, 1940. She received a Bachelor of Science in Nursing degree in 1964 and a Master's degree in psychiatric-mental health nursing in 1966, both from the University of Colorado at Denver.

She initiated her nursing career as a psychiatric-mental health nurse therapist for a private group in Denver and worked with student groups at the University of Colorado. In 1973, Watson received a Ph.D. in educational psychology and counseling, with a special cognate emphasis in social and clinical psychology, from the University of Colorado at Boulder. After she received her doctoral degree, Watson accepted a faculty position at the University of Colorado. She also served as a founder, clinical consultant and member of the board of the Boulder County Hospice and was active in crisis intervention and bereavement studies (George, 1990).

A member of the University of Colorado School of Nursing faculty since 1973, Watson has been associate dean of the baccalaureate program and was director of the doctoral program and coordinator of the psychosocial mental health nursing doctoral program from 1979 to 1981. She became Dean of the School of Nursing in 1984 and was instrumental in the decision to institute a program leading to a nursing doctorate (N.D.) as the first professional nursing degree. Watson established the University of Colorado Center for Human Caring in the School of Nursing in 1986. The center enables students and other

nurses to implement Watson's conceptual model of human caring in practice (Fitzpatrick and Whall, 1989).

Watson has been the recipient of numerous awards and honors. She received a Kennedy Foundation Award for a study of bioethics in 1977 and the Sigma Theta Tau National Honorary Nursing Society Award for Creativity in Nursing in 1980. She has received fellowships to study at Curtin University in Western Australia and Melbourne in 1981 and National Taiwan University in 1982. She has been a visiting professor at Teachers College, Columbia University, Hebrew University, Jerusalem, the University of Tel Aviv and the University of Montreal, Quebec (Marriner-Tomey, 1989, pp. 164-165). She is a prolific writer and has published numerous articles in the nursing literature.

While a faculty member at the University of Colorado, Watson was approached to write a textbook for an integrated baccalaureate nursing curriculum. Watson's first book, Nursing: The Philosophy and Science of Caring, was published in 1979. This book was followed by a subsequent book, Nursing: Human Science and Human Care - A Theory of Nursing (1985). These two books represented Watson's early attempts to develop her human care conceptual nursing model. Both books, however, lacked sufficient detail concerning her model. In 1988, she extended her earlier work and presented her model of human care. The 1988 book was the primary source for the analysis of her model.

Nursing: Human Science and Human Care - A Theory of Nursing (1988) consists of ten chapters. Each of the first nine chapters

emphasizes a major concept of her model. The final chapter describes methodologies to research her model.

Watson (1988, pp. 1-12) states that she was motivated to develop her model of human care as a result of a deep concern for preserving humanity in today's society and to rediscover the human spirit. She expresses a commitment to moving nursing away from the limitations of positivism and toward a new paradigm of humanism and spiritual awareness.

The central focus of Watson's conceptual nursing model is human care. Human care, as conceived by Watson, is an intersubjective process and an epistemic endeavor that includes human-to-human transactions.

Human caring is not just an emotion, concern, attitude, or a benevolent desire. Caring is the moral ideal of nursing whereby the end is protection, enhancement, and preservation of human dignity. Human caring involves values, a will, and a commitment to care, knowledge, caring actions, and consequences (Watson, 1988, p. 29).

Watson (pp. 27-30) proposes that human care begins when the nurse enters the phenomenal field of the client and is able to detect, feel and respond to the client's condition in such a manner that the client releases subjective feelings or thoughts that the client has longed to release.

The development of a transpersonal caring relationship is at the core of human care. The transpersonal caring relationship is perceived as a special kind of human care relationship in which both the client and nurse have high regard for the whole person and their being-in-the-world. It is a "spiritual union between two persons whereby both people transcend self, time, space and the life history of each other" (p. 63). This transcendence enables both client and nurse to enter the phenomenal field of the other.

The art of transpersonal caring occurs when the nurse accurately detects the subjective world of the client, experiences union with it and expresses that union in such a way that both persons experience a freeing of isolation (p. 67). In this simultaneous union of feelings, the recipient of care has a release of feelings that have long desired expression and is moved toward a higher sense of self and increased harmony of the mind, body and soul. When this occurs, "one's own self-healing processes and one's capacity for finding meaning in existence are available. At that point, one can better choose between health and illness, regardless of any disease, bodily or human condition" (p. 68). Watson views this act of transpersonal caring as the moral ideal of nursing.

Watson proposes that there are essential elements of the transpersonal caring relationship. These include (pp. 63-63): a moral commitment to protect and enhance human dignity; the nurse's intention to affirm the subjective significance of the person; the nurse's ability to detect the feelings and inner condition of another; the ability

of the nurse to feel and accurately express a union with another; and the nurse's own life history and sensitivity to the feelings of self and others.

Watson (pp. 45-47) defines person as an experiencing and perceiving being-in-the-world, which is continuous in time and space. She views the person as the locus of human existence, a living, growing gestalt, with a unique phenomenal field of subjective reality. She proposes that a person possesses three spheres of being--mind, body and soul--that are influenced by a changing concept of self. Of the three spheres comprising the person, Watson identifies that the soul is the most important.

The human soul (spirit or higher sense of self) is greater than the physical, mental, and emotional existence of a person at any given point in time. The soul is the ideal self that transcends time, space, consciousness and the physical world. Notions of personhood, then, transcend the here and now, and one has the capacity to coexist with the past, present and future, all at once (Watson, 1988, p. 45).

Watson contends that the person continuously strives to actualize the higher self and establish harmony within the mind, body and soul.

According to Watson (pp. 52-56), nursing is both a human science and an activity of art. "The human science of nursing is founded on an epistemology that includes metaphysics, esthetics, humanities, art and

empirics" (p. 53). Nursing is defined as a "human science of person and human health-illness experiences that are mediated by professional, personal, scientific and ethical human care transactions" (p. 54).

The goal of nursing is to assist persons in gaining a higher harmony within the mind, body and soul. "This harmony generates self-reverence, self-healing, self-knowledge and self-care within the person, while allowing increasing diversity" (p. 49). Watson believes that the goal of nursing is realized through the human-to-human caring process and caring transactions that respond to the subjective inner world of the person. "The nurse helps individuals find meaning in their existence, disharmony, suffering and turmoil and promotes self-control, choice, and self-determination with health-illness decisions" (p. 49). Nursing activity focuses on the human-to-human care process that involves a commitment to caring as a moral ideal and that is based on a set of interventions or carative factors.

Watson has developed ten primary carative factors that form the foundation upon which nurses can study the science of human caring and can intervene with persons through the development of a transpersonal caring relationship. The ten carative factors are as follows (pp. 74-75): (1) the formation of a humanistic-altruistic system of values; (2) the instillation of faith-hope; (3) the cultivation of sensitivity to one's self and to others; (4) the development of a helping-trust relationship characterized by congruence, empathy, nonpossessive warmth and effective communication; (5) the promotion and acceptance of the expression of positive and negative feelings; (6) the

systematic use of the scientific problem-solving method (the nursing process) for decision making; (7) the promotion of interpersonal teaching-learning; (8) the provision of a supportive, protective and corrective mental, physical, sociocultural and spiritual environment; (9) assistance with the gratification of human needs; and (10) allowance for existential-phenomenological forces.

Watson also proposes that nurses have the responsibility to go beyond the ten carative factors and develop areas of health promotion through prevention actions. This is accomplished by teaching clients behavioral changes to promote health, providing situational support, teaching problem-solving methods and recognizing coping skills and adaptation to loss (p. 75).

The metaparadigm concept of health is defined as "unity and harmony within the mind, body and soul. Health also is associated with the degree of congruence between the self as perceived and the self as experienced" (p. 48). She proposes that health is related to the degree of congruence that exists between a person's sense of I and me and schematically depicts health as: $I = Me = Health$ (p. 48). Illness, on the other hand, is conceptualized as subjective turmoil or disharmony within the person's inner self or soul or disharmony within the three spheres of the person. "When one's 'I' is separated from one's 'me,' the self is separated from the self. Illness connotes a felt incongruence within the person such as an incongruence between the self as perceived and the self as experienced" (p. 48).

Watson does not define specifically the metaparadigm of environment. This could be the result of her emphasis on the metaphysical rather than the physical dimension of human life. Watson does suggest that there is an objective physical or material world and a spiritual world. She defines world as "all those forces in the universe, as well as a person's immediate environment and situation that affect the person, be they internal, external, human, humanmade, artificial, natural, cosmic, psychic, past, present or future" (p. 56). This definition provides a broad conceptualization of environment.

In addition to the major concepts discussed, Watson identifies, defines and describes numerous other concepts in the presentation of her model. These include self (p. 39), phenomenal field (p. 55), soul (p. 46), noncaring (p. 43), love (p. 50), causal past (pp. 47-48), genuineness (p. 69), harmony (p. 70), life (p. 47), needs (pp. 50-51), space (p. 45) and time (p. 45).

In analyzing how the concepts of Watson's human care conceptual nursing model are related, it seems that Watson predominantly identifies, defines and describes the major concepts, rather than depicting relationships among the concepts. Some propositions can be found in Watson's discussion of the transpersonal caring relationship and human care. One example is as follows: "Through the human care process, the nurse can assist a person to reach greater congruence between the I and me. This congruence leads to perceived harmony between mind, body and soul. This harmony is health" (p. 70).

Most of the concepts incorporated in Watson's conceptual nursing model are related categorically and sequentially. A time dimension is incorporated in the relationships among the concepts, indicating a necessary, but not a sufficient relationship. The sequential relationship is evident specifically in Watson's transpersonal caring relationship and her development of self.

Watson clearly articulates the philosophical assumptions and values upon which her human care nursing model is based. She contends that a human science perspective is based on a philosophy of human freedom, choice and responsibility; a biology and psychology of holism; an epistemology that allows not only for empirics, but for advancement of esthetics, ethical values, intuition and process discovery; an ontology of time and space; a context of interhuman events, processes and relationships; and a scientific world view that is open (p. 16). She lists the following eleven assumptions that underlie her nursing model (pp. 32-33):

Care and love are the most universal, the most tremendous, and the most mysterious of cosmic forces: they comprise the primal and universal psychic energy.

Often these needs are overlooked; or we know people need each other in loving and caring ways, but often we do not behave well toward each other. If our humanness is to survive, however, we need to become more caring and loving to nourish our humanity and evolve as a civilization and live together.

Since nursing is a caring profession, its ability to sustain its caring ideal and ideology in practice will affect the human development of civilization and determine nursing's contribution to society.

As a beginning, we have to impose our own will to care and love upon our own behavior and not on others. We have to treat ourself with gentleness and dignity before we can respect and care for others with gentleness and dignity.

Nursing has always held a human-care and caring stance in regard to people with health-illness concerns.

Caring is the essence of nursing and the most central and unifying focus in nursing practice.

Human care, at the individual and group level, has received less emphasis in the health care delivery system.

Caring values of nurses and nursing have been submerged. Nursing and society are, therefore, in a critical situation today in sustaining human care ideals and a caring ideology in practice. The human care role is threatened by increased medical technology, bureaucratic-managerial institutional constraints in a nuclear age society. At the same time, there has been a proliferation of curing and radical treatment cure techniques often without regard to costs.

Preservation and advancement of human care as both an epistemic and clinical endeavor is a significant issue for nursing today and in the future.

Human care can be effectively demonstrated and practiced only interpersonally. The intersubjective human process keeps alive a common sense of humanity; it teaches us how to be human by identifying ourselves with others, whereby the humanity of one is reflected in the other.

Nursing's social, moral, and scientific contributions to humankind and society lie in its commitment to human care ideals in theory, practice and research.

The value system set forth within Watson's human care nursing model (pp. 34-35) consists of values associated with deep respect for the wonders and mysteries of life and an acknowledgement of a spiritual dimension to life and of the internal power of the human caring and healing process. Watson proposes that "human care requires high regard and reverence for a person and human life and nonpaternalistic values that are related to human autonomy and freedom of choice" (pp. 34-35). There is high value on the subjective-internal world of the experiencing person and how the person (both client and nurse) is perceiving and experiencing health-illness conditions. An emphasis is placed on helping a person gain more self-knowledge, self-control and readiness for self-healing, regardless of the external health condition. The nurse is viewed as a co-participant in the human care process. A high value, therefore, is placed on the relationship between the nurse and the person.

This value system is blended with Watson's ten carative factors (p. 75), such as humanistic altruism, sensitivity to oneself and others, and love for and a trust in life and other humans. "Underlying this value system is a call for a revaluing of humans and human caring" (p. 35).

Watson (1988, p. x) describes her theory as phenomenological-existential and spiritual in nature. She draws heavily on the social sciences and humanities. She acknowledges that her ideas are influenced by the works of Hegel, Whitehead, Marcel, Kierkegaard, Maslow, Leininger, Gadow and Carl Rogers, by Eastern philosophy and

by her spiritual and cultural encounters in New Zealand, Australia, Indonesia, Malaysia, the Republic of China, Thailand, India and Egypt. For example, Watson attributes her emphasis on the interpersonal and transpersonal qualities of congruence, empathy and warmth to Carl Rogers (1961) and recent transpersonal psychologists. Sally Gadow's (1980) writings on existential advocacy provided the source for Watson's ideas related to moral ideal, intersubjectivity and human dignity. Yalom's (1975) eleven curative factors stimulated Watson's thinking about the psychodynamic and human components that could apply to nursing and caring and, consequently, to the ten curative factors in nursing.

Watson's numerous citations and references indicate that she used a deductive approach to develop her model. Watson identifies that she integrated a synthesis of concepts and propositions from humanistic-existential and developmental paradigms to organize and structure her model. The humanistic-existential process orientation clearly is evident in her discussion of the existential, phenomenological and spiritual dimensions of human care. A developmental process orientation is apparent in Watson's conceptualization of the concepts of person and health.

Summary

Since 1952, nursing theory development has focused on the development of numerous nursing paradigms or abstract conceptual nursing models. Using the framework for analysis proposed by Fawcett

(1989), the historical development, central focus, content, theoretical foundations, organization, structure, assumptions and values of the following five conceptual nursing models were analyzed: the Psychodynamic Nursing Model proposed by Hildegard Peplau (1952); the Deliberative Nursing Process Model of Ida Jean Orlando (Pelletier) (1961); the Unitary Human Beings Model of Martha Rogers (1970); Callista Roy's Adaptation Nursing Model (1976); and Jean Watson's Human Science and Human Care Model (1988).

An examination of the models revealed distinct differences among the models. Each of the models provided a different conceptualization and understanding of nursing. The models articulated different purposes and goals for nursing. They defined the four metaparadigm concepts of person, environment, nursing and health in diverse ways and at different levels of abstractions. The models also differed significantly in their derivation, development and structure. They defined different boundaries for inquiry and different approaches to nursing knowledge development. Each of the models seemed to provide a distinct world view and cognitive orientation to nursing. Finally, the five conceptual nursing models represented various schools of thought within nursing, with diverse assumptions and philosophical orientations. The philosophical orientations of the five models will be analyzed in Chapter IV.

CHAPTER IV

PHILOSOPHICAL ANALYSIS OF THE MODELS

Introduction

The purpose of this study was to examine the philosophical orientations of the conceptual nursing models from the 1950s to the present in order to determine whether or not there has been a change in nursing philosophy and what implications any change might have for nursing education. This chapter focuses on an analysis of the philosophical orientations of the five conceptual nursing models reviewed in Chapter III and identifies and describes the current dominant philosophy of nursing.

The chapter is divided into three major sections. A framework for the philosophical analysis of the conceptual nursing models is presented in the first section. The second section analyzes the philosophical orientations of each of the five models. The final section discusses the findings of the philosophical analysis of the five models. It determines whether or not there has been a change in nursing philosophy since the first conceptual model was published by Peplau in 1952 and identifies and discusses the current dominant philosophy of nursing.

Framework for Philosophical Analysis

The first research question of the study was: What are the philosophical orientations of the conceptual nursing models? To answer this question, a framework for analysis was established. The

framework consisted of an examination of the ontology (the nature of reality), epistemology (the nature of knowledge) and axiology (the nature of values) of each of the five models.

Ontology

According to Wingo (1974), ontology is concerned with questions related to the nature of reality. Ontology attempts to examine the nature of human beings, the nature of the world (the environment), how humans are perceived in relation to their world and the role of experience in creating reality. Questions such as "What does it mean to be human?" and "What is the relationship of humans to the world?" are considered.

A review of the nursing literature reveals two predominant ontological views in nursing (Chaska, 1990, pp. 237-241). These two distinct views in how persons experience reality will be used to examine the ontology of the five conceptual nursing models. The first view is a mechanistic, reductionistic, persistence world view. The other world view, the progressive world view, emphasizes organicism and change.

The mechanistic, reductionistic, persistence world view proposes the following: the whole is seen as an assemblage of parts that are interchangeable; the cell is the basic building block; prediction and control are possible and desirable; and the scientific ideal is the objective observer, separate from that which is observed, whose methods yield some ultimate truth. Homeostasis, equilibrium and

adaptation are concepts consistent with this view of human-environment relationships (Chaska, 1990, pp. 237-241).

The mechanistic, reductionistic, persistence world view contends that the person, much like a machine, is inherently at rest, responding in a reactive manner to external forces or the environment. Behavior is considered a linear chain of causes and effects, or stimuli and responses. Mechanism assumes elementarism, in which the whole of any phenomena, living or nonliving, is the sum of its discrete parts. This world view also supports the notion of reductionism, "a doctrine that maintains that all objects and events, their properties and our experiences and knowledge of them, are made of ultimate elements, indivisible parts" (Ackoff, 1974, p. 8). Reductionism is associated with the notion that behavior is objective and predictable by reducing it to its component parts. This is a deterministic view, in that if enough is known about the parts, then the whole of behavior is predictable.

This world view also incorporates persistence. "The persistence world view maintains that stability is natural and normal" (Hall, 1983, p. 19). Persistence is endurance in time and produced by a synthesis of growth and stability. The focus is on continuation and maintenance of patterns and routines in human behavior through socialization. Persons are viewed as becoming more like themselves throughout their lifetimes. Persistence also assumes that people have the power to shape their own lives, but change occurs only when it is necessary for survival. Persistence may be thought of as intraindividual invariance,

in which solidarity and stability are valued and conservation and retrenchment are emphasized (Fawcett, 1989, p. 12).

The other view of reality, the progressive world view, focuses on organicism and change. This world view emphasizes wholeness, context, totally open systems and continuous, creative change. It suggests the following: the observer is not separate from the observed; there is no ultimate truth, but multiple realities and options; and prediction and control are neither possible nor desirable (Chaska, 1990, p. 238). The human being cannot be defined exclusively by the physical body; well-being is to be examined in the broader context of the whole. It stresses openness, nonlinearity and a conceptualization of time with space.

The progressive world view contrasts sharply with the mechanistic, reductionistic, persistence world view. The progressive world view proposes that the person is active inherently and spontaneously. The human engages in interactions with the environment, rather than reacting to the environment. Cause and effect are deemphasized and complete prediction is rejected. Behavior is understood only in a probabilistic sense and within the context of the whole.

The progressive world view assumes holism. The human is postulated to be an integrated, organized entity who is not reducible to discrete parts. Although parts of the organism may be acknowledged, they have meaning only within the context of the whole. Ackoff (1974) explained that this doctrine, which he called expansionism, "maintains that all objects, events and experiences of them are parts of larger

wholes. It does not deny that they have parts, but focuses on the wholes of which they are part" (p. 12).

Kahn (1988) has suggested two interpretations of the phrase associated with holism, "the whole is more than the sum of the parts." One interpretation, which Kahn called emergent holism, maintains that the whole has a property not found in any of its parts; the new property emerged from the parts. The other interpretation, called connected holism, maintains that the whole forms different relationships with other objects than do the separate parts. Thus, a simple sum of the relationships of each part with another object, such as the environment, does not yield an accurate understanding of the relationship with the other object.

The progressive world view also proposes that behavior is associated with change or growth. These changes are qualitative as well as quantitative. "The change processes are viewed as an inherent and natural part of life" (Hall, 1981, p. 2). This view maintains that change is continuous and the person is in a state of transition. Change is conceived as continual intraindividual variance. Progress is valued and the realization of one's potential is emphasized.

The mechanistic, reductionistic, persistence world view and the progressive world view provide two distinct ontological perspectives of humans and human-environment relationships. The elements of these contrasting world views are summarized in Table 1.

Table 1. Elements of the Mechanistic, Deterministic, Persistence World View and the Progressive World View

Mechanistic, Deterministic, Persistence World View	Progressive World View
Metaphors are the machine and stability	Metaphors are the living organism and growth
Human being is reactive	Human being is active
Behavior is a predictable linear chain	Behavior is probabilistic
Elementarism and reductionism assumed: Focus is on parts	Holism and expansionism assumed: Focus is on wholes
Cell theory	Field theory
Person/environment: dichotomous	Person/environment: integral
Time versus space	Time and space
Stability	Growth
Stability is natural and normal	Change is natural and normal
Change occurs for survival	Change is continuous
Intraindividual invariance	Intraindividual variance
Conservation and retrenchment emphasized	Progress emphasized
Solidarity valued	Realization of potential valued
Change is quantitative	Change is qualitative and quantitative
Equilibrium	Innovative growing diversity
Being	Becoming

Epistemology

Epistemology is concerned with the nature, source, criteria and limits of human knowledge (Wingo, 1974). Important questions in epistemology are related to the nature of knowledge, the sources of human knowledge and the methods for validating knowledge. According to Schultz and Meleis (1988), nursing epistemology is "the study of the origins of nursing knowledge, its structure and methods, the patterns of knowing and the criteria for validating knowledge" (p. 217). Nursing epistemology is the study of how nurses come to know, what nurses should know, how nursing knowledge is structured and on what basis knowledge claims are made. Parse (1987) has proposed that two competing paradigms can be used to examine the epistemology of conceptual nursing models: the totality paradigm and the simultaneity paradigm.

The totality paradigm is the predominant epistemology in nursing today. It is the oldest and most dominant epistemology. Historically, this paradigm is rooted in the works of Nightingale and has been supported and promoted over time as the discipline of nursing evolved. It is a natural outgrowth of nursing's close connection with medicine, arising from the natural sciences and the logical positivist view of knowledge and truth.

According to Parse (1987, pp. 31-34), in the totality paradigm, the metaparadigm concept of person is considered to be a bio-pyscho-social-spiritual being whose environment can be manipulated to promote or maintain balance or homeostasis. The human interacts with

the external environment, establishes transactions and achieves goals. Capable of meeting their own needs, humans are adapting beings who may require assistance with coping and meeting their needs. The metaparadigm concept of health is viewed as a dynamic state and a result of the process of physical, psychological, social and spiritual well-being. There is an optimal health toward which the human strives.

The goals of nursing in the totality paradigm focus on health promotion, care and cure of the sick and prevention of illness. Those receiving nursing care are persons designated as ill by societal norms. Frameworks and theories from this paradigm guide nursing practices that focus on helping sick individuals to adapt, meet their own needs or attain health goals. Nursing care during illness, prevention of disease and maintenance and promotion of health are the important aspects of nursing practice. The authority figure with regard to nursing and the prime decision-maker in this paradigm is the nurse. Nursing practice is made operational through the nursing process of assessment, diagnosis, planning, implementation and evaluation. "This is not a methodology grounded in the paradigm, but rather the problem-solving process elaborated upon in the processes involved in helping a person adapt to illness, meet needs and set realistic goals" (Parse, 1987, p. 33). There are systematized nursing care plans for persons with various health problems, identified by medical science, that are modified to meet individual needs. The outcomes of nursing practice can be measured by need fulfillment, the level of adaptation and the goals attained by persons receiving nursing care.

Parse (1987, p. 32) identified that the theoretical knowledge sources related to the totality paradigm are grounded in the works of Maslow, Helson, Selye, Sullivan, Newton, and Descartes. The language of the theories in this paradigm is specified at a level that is connected readily with the traditional practice of nursing. While the conceptualizations in the theories are systematized in structures useful for nursing, the ideas are associated closely with medical science.

The process of nursing research that validates knowledge from the totality paradigm consists of quantitative methods borrowed from the natural sciences or logical positivism. DeGroot (1988) proposed that logical positivism, or the received view, asserts that objective, axiomatic truth exists that is discoverable and able to be verified by hypothetetical methods. Only methods that are objective and produce sense data can demonstrate appropriately this truth with any certainty and only knowledge derived in this manner counts as true scientific knowledge. The logical positivist approach to knowledge, or the received view, conforms closely to the correspondence norms of truth (Kaplan, 1964). What constitutes truth is the degree of correspondence between facts and their related theories and the degree to which propositions can be verified or shown to be false. Truth can be achieved only when it is shown that a proposition cannot be falsified. The received view also relies, in part, on the coherence theory of truth and its appreciation of theoretical aesthetics and logical simplicity in content and form.

Schultz and Meleis (1988, p. 219) contend that the received view of knowledge proposes that persons perceive themselves as capable of receiving, even reproducing, knowledge from all-knowing external authorities but not capable of creating knowledge on their own. Individuals who use this way of knowing rely on others for the words to communicate what they know. For this type of knowledge, knowledge is observable; there is no ambiguity in it, and it depends on the expertise of others.

The simultaneity paradigm, as conceptualized by Parse (1987, pp. 135-138), is an alternative to the traditional totality paradigm. In this paradigm, the human is viewed as more than and different from the sum of the parts. The human is viewed as an open being in constant interchange with the environment. Humans give meaning to situations and are responsible for choices in moving beyond what is. Humans live in a relative now, experiencing what was, is, and will be, all at once. Health is viewed as a process of becoming and as a set of value priorities. Health is the human's unfolding. It is experienced by the individual. There is no optimum health; health simply is how one is experiencing living.

The goals of nursing in the simultaneity paradigm focus on the quality of life from the person's perspective. Nursing is practiced with families, groups, and communities, as well as with individuals. Designation of illness by societal norms is not a significant factor. The paradigm guides nursing practice to focus on illuminating meaning and moving beyond the moment. The authority figure and prime decision-

maker with regard to nursing care is the person, not the nurse. The nursing process of assessment, diagnosis, planning, implementation and evaluation is not consistent with the beliefs of this paradigm and is not appropriate as a systematic mode of practice. The practice methodology, instead, focuses on illuminating meaning, synchronizing rhythms and mobilizing transcendence with persons and groups as a guide to changing health patterns in relationship to their personal quality of life. There are no systematized nursing care plans based on health problems. The person in the nurse-person interrelationship determines the activities for changing health patterns; the nurse provides presence, with the person guiding the way. The outcomes of nursing practice are described by the person in light of the person's own plans for changing health patterns as they relate to quality of life.

The theoretical roots related to the simultaneity paradigm are grounded in the works of de Chardin, Von Bertalanffy, Polanyi, Sartre, Heidegger, Merleau-Ponty and Einstein. The conceptualizations from these theories are systematized structures unique to nursing science.

The research methodology used to validate knowledge in the simultaneity paradigm generally is consistent with what Polkinghorne (1983) calls the postpositivist conception of knowledge. A postpositivist conception of scientific knowledge and truth holds that the pursuit of knowledge and truth necessarily is historical, contextual and theory laden. It claims no access to certain truth or knowledge but rather accepts certain knowledge to be true if it withstands the practical tests of reason and utility. In this way, although knowledge may be useful, it

still is fallible. Postpositivism does not cling to any one method of science and in fact encourages the use of different research methods, particularly qualitative, to examine research questions. Polkinghorne (1983) noted that "those methods are acceptable which produce results that convince the community that the new understanding is deeper, fuller and more useful than the previous understanding" (p. 3). The postpositivist aligns itself with the pragmatic theory of truth that emphasizes practical utility in problem solving and the degree of community consensus about that utility.

The simultaneity paradigm also supports different ways of knowing. In addition to received knowledge, subjective knowledge and constructed knowledge are recognized. According to Belenky, Clinchy, Goldberger and Tarule (1986), subjective knowledge is knowledge that is "conceived of as personal, private and, subjectively known and intuited" (p. 15). Subjective knowledge is intuitive and experienced, but is transient and not cumulative. It is felt knowledge, rather than cognitively appraised or constructed knowledge.

Constructed knowledge is a pattern of knowing in which persons "view all knowledge as contextual, experience themselves as creators of knowledge, and value both subjective and objective strategies of knowing" (Belenky et al., 1986, p. 15). This knowledge integrates the different ways of knowing. "All knowledge is constructed and the knower is an intimate part of the known" (p. 37). Persons who subscribe to this view of knowing see theories as approximations of reality that are ongoing and always in process; their frames of

reference are constructed and reconstructed, and posing questions is as important as attempting to answer questions. Persons believe that knowledge arises as much through openness and curiosity and through examination of the assumptions and context within which questions are posed as through adherence to procedures or systematic observations and replication.

For persons who subscribe to this view of knowing, the development of knowledge is a never-ending process. There are glimmers of certain knowledge if one understands the whole of a situation. Experts (experienced knowers) develop a connected knowing through conversing with each other and through identifying patterns, consistencies and order in the evidence provided by the various ways of knowing (Benoliel, 1987). Their knowledge is corroborated by knowledge from other disciplines.

An analysis of the epistemology of the five conceptual nursing models from the 1950s to the present illustrate that the nurse theorists have worked diligently to offer a number of different conceptualizations and understandings of nursing. They have attempted to move away from the received view approach to knowledge to an approach based on their experiences and education. All five of the conceptual nursing models attempt to articulate the uniqueness of nursing as a discipline and try to differentiate nursing from other closely aligned disciplines. All five models also offer a view of the epistemological underpinnings of nursing. The models describe how nursing provides an important societal function. They provide a

beginning common language for nursing by incorporating the four nursing metaparadigm concepts of person, environment, nursing and health.

Although there are epistemic agreements among the five conceptual nursing models, the models illustrate examples of the two competing paradigms proposed by Parse (1987) in which beliefs about the nature of knowledge and truth differ. Also, even though the four metaparadigm nursing concepts generally are considered phenomena central to nursing in all five conceptual nursing models, there are differences as to how the concepts are defined, and the emphasis that one concept has in relation to the others. The models seem to mirror nursing interests of the time period in which the model was developed, the sociocultural context and the theorist's educational and experiential background. These differences are depicted in Table 2.

Table 2. A Comparison of the Four Metaparadigm Concepts of Nursing of Five Conceptual Nursing Models

Theorist	Person/ Client	Environment	Nursing	Health
Peplau	An individual who is sick or in need of health services; an organism that lives in an unstable equilibrium.	Not well-defined; context of culture.	A significant, therapeutic, interpersonal process; an educative instrument and maturing force.	Forward movement of personality and other ongoing processes in the direction of creative, constructive, productive, personal and community living.
Orlando	A behaving, human organism that has needs; persons who become distressed, when without help, cannot meet their needs.	Not well-defined; the immediate situation.	A dynamic, deliberative situationally unique process in which the nurse ascertains the client's needs and initiates a process to meet these needs.	Not well-defined; fulfilled needs or a sense of comfort or well-being.
Rogers	An open, irreducible, four-dimensional energy field in constant interaction with the environment.	An open, irreducible, four-dimensional energy field that is integral to the human energy field.	A humanistic science dedicated to compassionate concern for people.	An expression of the life process; a value defined by cultures and individuals.

Table 2 (continued)

Theorist	Person/ Client	Environment	Nursing	Health
Roy	A biopsychosocial being in constant interaction with a changing environment; a complex adaptive system striving to maintain adaptation.	Not well-defined; surrounding external stimuli.	A scientific discipline that is practice oriented and provides a service to people.	A state of adaptation that is manifested in free energy to promote healing.
Watson	An experiencing and perceiving being-in-the-world, who is continuous in time and space; the locus of human existence, living gestalt possessing three spheres of being - mind, body and soul.	Not defined; all forces in the universe.	A human science and an activity of art; a human science of person and human health-illness experiences that are mediated by professional, scientific and ethical human care transactions.	Unity and harmony within the mind, body and soul.

Axiology

Axiology is concerned with the sources and criteria of values (Wingo, 1974). In analyzing conceptual models of nursing, Chinn and Jacobs (1987, pp. 57-58) concluded that values can be categorized into three types of values: individual, professional and societal.

Individual values include such factors as the individual's commitment to the discipline, personal philosophy of nursing and those motives, philosophical beliefs and system of priorities that influence the choice to participate in theory development. How the individual's own beliefs contribute to theory development in the discipline also is included.

Professional values are beliefs and ideologies that are held generally by the profession collectively and are used to guide the actions of the profession as a whole. Predominant professional values are expressed in formal statements issued by professional groups such as codes, standards of practice and ethical theory. Professional values also are reflected in repeated themes that occur in the literature and by actions taken to lend support to the activities of individuals and groups.

Societal values are the major social ideologies expressed through societal choices, sanctions and cultural mores at a given point in history. Congruence or compatibility among individual, professional and societal values generally enhances the development of a discipline. When individual or professional values are in conflict with or challenge societal values, there is potential for creating change in society or the elimination of the discipline.

Philosophical Analysis of the Five Conceptual Models

Peplau's Psychodynamic Nursing Model

Although Peplau provides an early attempt to view nursing from an idealistic, humanistic philosophy, her model essentially espouses the behaviorist philosophy of the medical model. Her model exemplifies a mechanistic, deterministic, persistence ontological view. She proposes a reductionistic conceptualization of person and a view of human behavior from within the perspective of a closed-system notion of tension reduction. The person is considered a developing system composed of biological, physiological, psychological and interpersonal needs. Development occurs as a result of interactions with others. Persons are viewed as living in an unstable equilibrium with two basic goals: self-maintenance and perpetuation of the species. All behavioral activities are purposeful and are directed toward the reduction of anxiety generated from unmet needs. The person's behavior can be understood and predicted. Growth is seen as the result of reactions to a chain of events; response is certain and predictable.

Peplau's model also postulates a directional and causal relationship between the person and the environment, in which the environment stimulates the emergence of needs and leads to an action or response. The environment acts upon the person in determining personality characteristics and needs. Although the model attests to the importance of the interpersonal environment, the environment is conceived as external to the person, with both the person and the

environment having seemingly discrete boundaries. Behavior can be measured as well as changed through management of the environment.

The epistemology of Peplau's model, developed in 1952, is congruent with the prevailing interest at the time in psychosocial theories and reflects a close alignment with medicine and the totality paradigm. The model focuses on the problems and needs of the client, as identified by the nurse, and the development of a relationship between the client and nurse to meet unresolved needs. The role of the nurse is to assess the client's needs and assist in meeting needs. The model provides nursing with a view of a human being that is slightly different, but very close to the view of person provided by the biomedical model. The hierarchy of needs begins with physiological needs and progresses to higher level needs of safety, esteem, and love and belonging. Nursing is viewed as a deliberate process that can be elucidated and consists of an interpersonal process occurring between a person in need of help and a person educated and capable of giving help.

Peplau (1952) does provide an early attempt to view nursing from an interpersonal framework. She formalizes the dependency theme that exists between a person who needs help and a nurse who is educated specifically to recognize and respond to this need for help. Her interpersonal model initiates a movement from an intrapsychic emphasis and a dominant focus on physical care within nursing to an interpersonal focus. Peplau attempts to rediscover the art of nursing by recognizing nursing as both an art and science. Nursing science is

identified by attending to both basic and applied knowledge. She addresses the domain and knowledge that is unique to nursing, independent of other health professions.

Peplau's nursing model also emphasizes the importance of the nurse maintaining an objective, neutral and nonjudgmental stance in relationships with clients. There is little recognition of the mutuality of exchange between the client and the nurse and between the client and the environment. She disregards the reductionism extant in her model. She views behavior within the biologically-based psychoanalytic theory and closed notions of tension reduction.

Peplau's model was developed through a synthesis of concepts from the natural and social sciences. Specifically, she borrowed ideas from the psychoanalytic theories, the principles of social learning and theories of human motivation and personality development. She combines the various ideas of Sullivan, Maslow, Miller and Symonds, whose theories were initiated by Freud, Fromm and Pavlov, and reformulates these ideas in such a way that the concepts become compatible and relevant to the empirical world of nursing practice. Her model contributes significantly to the shift from total intrapsychic to the interpersonal approach in the therapeutic relationship. It enables nurses to begin to move away from a disease orientation to one whereby the psychological meaning of events, feelings and behavior can be explained and incorporated into nursing practice.

To validate and verify nursing knowledge, Peplau's model advocates that a combination of quantitative and qualitative research

methodologies be employed. She operationally defines the four phases of the nurse-client relationship, nursing roles and the client with regard to her/his state of dependence. Peplau relates behavior to theory by naming, categorizing and making operational definitions of behavior.

In the 1950s, there was a growing recognition, both individually and professionally, that nursing was distinct from other disciplines, especially medicine. Peplau's axiology exemplifies this recognition and values higher education and autonomy for nursing. Also, she values a recognition and respect for the individual. Persons are considered to be unique, of inherent value and responsible, in part, for their own health. The nurse, as an individual, also is valued and considered an integral part of the care.

Peplau also recognizes the growing appreciation and social desire for quality nursing care by educated nurses. She proposes the value that nursing is an interpersonal process occurring between a person in need of help and a person capable of giving help. Nursing is viewed as concerned with caring, helping and assisting. Nursing, however, needs to elucidate its unique service so that its potential can be realized. Peplau also reintroduces the significance of the nurse's intuition and subjectivity and begins to identify diverse ways of understanding people.

Orlando's Deliberative Nursing Process Model

Like Peplau's model, Orlando's Deliberative Nursing Process Model exemplifies a behaviorist philosophy that is consistent with the medical model. The ontological view of her model illustrates a mechanistic, deterministic, persistence world view. Orlando proposes a reductionistic view of person, in which human behavior is perceived from within a stimulus-response framework and a closed-system notion of tension reduction and comfort maintenance. All behavioral activities are considered as purposeful and directed toward the reduction of discomfort from unmet needs.

Orlando's model also postulates a directional, linear and causal relationship between the person and the environment, in which the environment stimulates the emergence of immediate needs and causes the person to act or adjust to the environment. Behavior can be measured and changed through a modification of the environment. Although the model recognizes the importance of the environment, it is not well-defined and is viewed as external to the person.

As indicated in Table 2, Orlando's model (1961) emphasizes an epistemology that focuses on the reciprocal interaction between the client and nurse. Both the client and nurse are affected by the other's behavior. She is one of the first nurse leaders to emphasize the importance of the client's active participation in nursing care.

Orlando advocates deliberative nursing care, which she claims is distinct from other health professions. She recognizes the critical element of client validation of needs and validation as to whether or

not the nurse's actions were helpful in meeting the needs of the client. Orlando's concept of client involves those persons under medical treatment or supervision. Nurses are concerned professionally only with those clients who have needs that they cannot meet comfortably on their own. The nurse's goal is the improvement of the client's physical and mental health or comfort, producing a sense of adequacy. The goal of nursing is achieved when the nurse supplies the assistance clients require in order that their needs be met. The nursing process, a tool for nursing practice, is introduced first by Orlando. It consists of a systematic, sequential series of steps the nurse follows during the implementation of nursing care and is similar to the medical diagnostic process.

Orlando's model proposes an epistemology that illustrates traditionally commonly held views of what nurses do in providing service to people. A major assumption of her model is that nursing is aligned to medicine, to the extent that nursing's responsibility is only to those persons undergoing medical treatment or supervision. This assumption ties nurses and nursing to medical systems and institutions and restricts the scope of persons, health, environment and nursing. While it is not meant to be a medical model, Orlando's model corresponds well with medicine and is dependent on medicine's epistemology. The nursing focus takes into account the medical as well as the client's point of view. This correspondence with medicine reaffirms nursing in its traditional role.

Orlando's model incorporates knowledge from the natural and social sciences, as well as medical specialities and is consistent with the totality paradigm. The person is defined from a need deficit framework. It emphasizes illness and restricts the knowledge needed for nursing. There is no movement of nursing to a unique science committed to human capacities. The person is viewed as a being who merely reacts to the environment and whose behavior can be measured and predicted as well as changed through manipulation of the environment. There is no reference to the creative processes of the person that can transcend the rational. There is an incomplete view of human beings and the environment. The model focuses on how the nurse provides care, while the nursing content is relegated to a synthesis of principles, concepts, laws and theories from the natural and social sciences, particularly from the medical model. The model lends itself to quantitative research methodologies, in which behavior can be reduced to measurement.

Like Peplau, Orlando values the uniqueness of each client and each client-nurse situation. Nursing is valued as being socially significant in that it is beneficial, and never harmful, to persons. To be beneficial, however, nurses must validate their observations with clients and focus only on those needs that clients cannot meet on their own. To provide quality nursing care, nursing also must function autonomously, as well as collaboratively, with other health professions.

Rogers's Model of Unitary Human Beings

Rogers's Model of Unitary Human Beings reflects a different philosophy of nursing. Her model proposes a philosophy that is an eclectic synthesis of idealism, progressivism and humanism and that moves away from rationalism and scientific realism. The ontological view of her model exemplifies a progressive world view. She describes the human and the environment as irreducible, energy fields in mutual interaction with each other. She believes this interaction occurs simultaneously and negates cause-and-effect processes. She also posits four-dimensionality as a nonlinear domain without spatial or temporal attributes. Rogers takes exception to a mechanistic, reductionistic, persistence world view. Her basic assumption underlying four-dimensionality is the integrality of human and environmental fields, including noncausality, nonspatial or nontemporal attributes, nonlinear domains, nonrepetitive pattern, or irreducibility to parts.

Rogers defines the person as an irreducible whole, with characteristics that are different from those of the parts and which cannot be predicted from knowledge of the parts. She proposes that the person's fundamental unit is not the cell, but the human energy field. The person is an open system who has the capacity to participate knowingly and probabilistically in the process of change. She presents a view of the unitary nature of reality, in which energy fields extend to infinity and persons are inseparable from the natural world. The person and the environment are complimentary systems, not dichotomous ones. Humans and the environment are in continuous

interaction, mutually changing each other and becoming increasingly complex, diverse and differentiated. The ontological view underlying Rogers's model is progressive in the sense that it is moving, dynamic and expansive. It describes a different view in how people experience their reality. It provides a view of reality that emphasizes wholeness, becoming, relativity, relations, synthesis and noncausal determination.

In 1970, Rogers identified explicitly the person as the central phenomena of nursing's concern. Although other conceptual nursing models have considered the person in a holistic manner, Rogers's view of person as a unitary human being is distinctive in that no parts or components are delineated; the person is a unified whole. Furthermore, although other conceptual nursing models consider the environment and its relationship to the person, Rogers's view of person and environment as integral energy fields is distinct and visionary.

As indicated in Table 2, Rogers describes person and environment as energy fields in mutual interaction with each other. She believes this mutual interaction occurs simultaneously and negates cause and effect processes, a view that is consistent with the simultaneity paradigm. Life processes also are viewed as a whole with a focus on nonpredictable and noncausal interactions of persons and environment. Health is viewed as having no end point. It is not balance or equilibrium. It is harmony that evolves and manifests itself in mutuality or integrality of person-environment energy fields. Nursing is viewed as creative and imaginative, rooted in abstract knowledge,

intellectual judgment and compassion. Rogers emphasizes the use of the nurse's own self in the caring process.

Rogers's Model of Unitary Human Beings presents a different epistemology. It identifies nursing's uniqueness and signifies the potential of nurses to fulfill their social responsibility in human service. The development of her model is a process of the creative synthesis of knowledge. The model is not derived from any of the basic sciences of any other field. Rather, Rogers believes that nursing must be its own unique irreducible mix, requiring a new synthesis, a creative leap and the inculcation of new values and attitudes. Most of Rogers's concepts are unique and original. For example, her concept of unitary human being is an original concept. Other concepts found in her model are synthesized from general systems theory, physics, evolutionary theory and philosophy.

Rogers calls for the rebuilding of undergraduate and graduate programs in nursing to reflect the evolution of nursing science. Consistent with her definition of nursing as a learned profession and a theory-based science, Rogers recommends university-based education for all nurses and emphasizes the development of Ph.D. programs in nursing. Rogers also views nursing more closely aligned with the liberal arts college than any other colleges of the university. Her model of unitary human beings mandates inclusion of such courses as physics, literature and philosophy, as well as those in the biological and social sciences.

Rogers's model supports the use of both quantitative and qualitative methods to validate knowledge. Virtually any setting and any person would be appropriate for study, with the proviso that both person and environment in their totality are considered. Historical, phenomenological and philosophical research inquiries that focus on the uniqueness of each person are encouraged.

The axiology of Rogers's model values knowledge and education not only for nurses, as professionals, but also as individuals. She envisions nursing as a theory-based science, with its own unique body of knowledge. She assumes that knowledge will empower both the nurse and client. She values change and diversity. She accepts the integral connectedness of life in which humanity and the environment are inseparable. She elucidates a Platonic idealism and an optimistic view of the unlimited potential of nursing.

Roy's Adaptation Nursing Model

Although published after Rogers's conceptual nursing model, Roy's Adaptation Nursing Model (1976) proposes a nursing philosophy of scientific realism and behaviorism. Her model characterizes the human as an adaptive system with cognitive and regulator systems and four modes of adaptation: physiological, self-concept, role function and interdependence. This conceptualization of the human closely resembles the view of humans of the mechanistic, deterministic, persistence world view in which the person is conceived as a particulate being, who can be parceled into separate components for

analysis and study. To view the component parts of a human as merely an additive function presents the human as a mechanistic being, a composite of individual parts, and not as an unified whole.

Further examination of Roy's model indicates that the human is considered to be an adaptive system in constant interaction with a changing environment. The environment consists of external stimuli (focal, contextual and residual) that act upon the human. The person responds to the stimuli through the process of adaptation. Successful adaptation occurs when a positive response to an environmental stimulus or homeostasis has occurred. This process exemplifies linear causality, persistence, balance and equilibrium and a view of the person as a passive, reactive participant in the human-environment relationship.

Roy (1976) promulgates an adaptation model as the basis for nursing practice that is consistent with the general knowledge about person, environment and health as explicated in the traditional medical model. As illustrated in Table 2, person is defined as a biopsychosocial being in constant interaction with a changing environment. The individual uses adaptation as a means of responding to environmental stimuli. Successful adaptation indicates that a positive response to an environmental stimulus has occurred. Health is viewed as the opposite of illness. An individual can be located at any point on the health-illness continuum. Nursing is concerned with the person interacting and adapting to internal and external environmental stimuli. Using the

systematic steps of the nursing process, the nurse is to solve the client's problems and bring about adaptation.

Roy's model is an example of an epistemology consistent with the traditional medical model and the totality paradigm. In the totality paradigm, person is viewed as a bio-psycho-social-spiritual being adapting to the environment. Health is a point on a continuum and can be changed through the intervention of the health care provider. Roy's view of person as a biopsychosocial being does not entail a holistic view of person. It omits the spiritual and humanistic aspects of humans. It creates an illusion that the person can be parceled into separate components for analysis and study. Person is defined as a survival-oriented, behaviorist (condition-response), amoral, living system. There is a mechanistic, closed view of person as an adaptive system. There is no clear conceptualization of the environment. Roy's view of nursing suggests a one-way relationship on the part of the nurse, with no clear indication of how the client participates in the nursing care and decision-making process. Nursing care focuses more on the biological and physiological aspects of care. The extensive, systematic assessment process advocated in Roy's model is congruent with the medical model's need for an organized system of assessment and intervention in client care.

Roy's model is a synthesis of concepts developed outside the domain of nursing from physiology, psychology and sociology and redefined within the context of nursing. The heavy biological and neuropsychological influences in the model's development contribute to

its utility in the medical practice arena and serves as a basis for providing traditional nursing care. Her model lends itself to logical positivism or quantitative research methodologies.

Roy's axiology is difficult to discern in her model. She does value nursing as a socially significant activity and believes that nursing makes a unique contribution to society with its emphasis on health and healing.

Watson's Human Science and Human Care Model

Like Rogers, Jean Watson's Model of Human Science and Human Care (1988) espouses a different nursing philosophy. Specifically, her model proposes a humanistic existential philosophy of nursing. Her model rejects the mechanistic, deterministic, persistence view of humans and human-environment relationships. Her ontological view evolves from the idea that the person is an experiencing and perceiving being-in-the-world, continuous in space and time. She views the person as the locus of human existence, a living, growing gestalt, with a unique phenomenal field of subjective reality. The locus of human existence is experience. The person is viewed as possessing three spheres of being (mind, body and soul) that are influenced by the concept of self. The soul, and consequently the person, is not confined by objective time and space. The world as experienced is not distinguished by external or internal notions of time and space, but has its own sense of time and space that is unconstrained by linearity. Watson's notion of personhood, then, transcends the here and now and acknowledges the past, present

and future. Transcendence provides opportunities for the person to evolve and projects the person as always in a state of becoming.

Watson's metaphysical model illustrates a progressive world view. It emphasizes human connectedness with the world and the human's capacity to evolve continuously to create a personal reality. Her ideas are concerned with spirit rather than matter; flux rather than form; and inner knowledge rather than circumstances. The person is considered in totality and experience is viewed as a whole. This emphasis on wholeness and on transcending time and space provides an alternative view to mechanism, reductionism and persistence. It presents new and different insights into human beings and their environment. The presence of a higher spiritual element in humanity and the inseparable connections between persons and nature provide a view of the person transcending nature, yet remaining a part of it, and offers nursing a different understanding of person and environment.

Watson's nursing model is consistent with the simultaneity paradigm and offers a different epistemology for nursing. As illustrated in Table 2, her definitions of the four metaparadigm nursing concepts provide a holistic view of person; provide a recognition in the becoming of the person; place primacy in the quality of life; and value the subjective dimension of human experience. Nursing is conceived as a human science of persons and health-illness experiences that are mediated by professional, personal, scientific, esthetic and ethical transactions. Nursing is the human-to-human care process that includes a commitment to caring as a moral ideal. This view of nursing is part of

a broader view of nursing that focuses on personhood rather than sickness, behavior, or predicted nursing actions. Her model attempts to unify and enhance the experiences of humans, rather than devaluing and alienating these experiences.

Watson contends that nurses have been seduced by the physical world of science and tradition. She is committed to moving away from the limitations of positivism, toward a new paradigm of humanism. Her recognition of the spiritual and existential significance of human life make her ideas regarding nursing and human care a unique contribution to nursing science. She describes her model as phenomenological, existential and spiritual in nature, influenced by Eastern as well as Western philosophical ideas.

Watson contends that her nursing model of human science is based on an epistemology that includes metaphysics, esthetics, the humanities, art and empirics. Specifically, she states that her model is based on a philosophy of human freedom, choice and responsibility; a biology and psychology of holism (nonreducible persons interconnected with others and nature); an epistemology that allows not only for empirics, but also for the advancement of esthetics, ethical values, intuition, and process discovery; an ontology of time and space; a context of interhuman events, processes and relationships; and a scientific world view that is open (p. 16).

Watson believes that there has been a discrepancy in nursing between nursing theory and practice. To reduce this dichotomy, Watson proposes a philosophy that conceptualizes caring as central to nursing

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practice and a moral ideal, rather than a task-oriented behavior. The goal is the preservation of human dignity and humanity in the health care system. She concludes that ultimate professional nursing care is the result of the combined study of the sciences and the humanities, culminating in a human care process between the nurse and the client that transcends time and space and has spiritual dimensions. This process, which is built on an ethical human science foundation, is based on the ten carative factors of nursing.

Watson is adamant in her support for nursing education that incorporates holistic knowledge from many disciplines and integrates the humanities, art and sciences. She views the increasingly complex requirements of the health care system and nursing practice to be indicators of the need for liberal educational background before professional education. She suggests that knowledge of the liberal arts provides an experience resulting in mind expansion, increased thinking skills and personal growth.

Watson believes that her model calls for qualitative, naturalistic and phenomenological field methods or a combination of qualitative and quantitative research methodologies to validate nursing knowledge. She is attracted to the phenomenological research method because this method attempts to describe and understand human experiences as they appear in awareness. She contends that a phenomenological analysis of human meanings can lead to increased understanding of health, illness and the human care process. Watson also contends that nurse researchers must acknowledge that there is a

discrepancy between nursing's interest in humanism and medicine's interest in the empirics of science. She suggests that nurses reject materialism, positivism and determinism and replace these ideas with a focus on expanding ways of knowing (other than the received view) and the metaphysical. A phenomenological analysis of human experiences in health and illness will provide nurses with the data necessary for understanding the human condition and the carative factors related to the human care process.

Watson values loving and caring. She views them as necessary for the survival of humanity and the advancement of civilization. Meaning to a person's existence occurs only from a commitment to receiving through giving and through relationships with other people. She is committed to a form of humanism and higher metaphysical awareness. Her major assumption is that each person is an undernourished spiritual being who is reduced to a physical, materialistic being. She proposes that there is an increased need for nursing to rediscover the inner healing of humans and the human caring process in nursing theory, practice and education. She views caring, based on a set of universal and altruistic values, as the essence and focus of all nursing activity.

Discussion of Findings

The first research question of this study was: What are the philosophical orientations of the conceptual models of nursing? An examination of the philosophical orientations (the ontology,

epistemology and axiology) of each the five conceptual nursing models developed from 1952 revealed that three of the models--Peplau's Psychodynamic Nursing Model (1952), Orlando's Deliberative Nursing Process Model (1961) and Roy's Adaptation Model (1976)--continue to reflect predominantly the behaviorism and scientific realism embraced by the medical model. These three models continue to exemplify a mechanistic, deterministic, persistence ontological view; an epistemology that is consistent with the totality paradigm, with its emphasis on a received view of knowledge and logical positivism; and an axiology that values stability, traditionalism and nursing's close alignment with medicine. Two models, Rogers's Model of Unitary Human Beings (1970) and Watson's Human Science and Human Care Model (1988), however, offer nursing a different philosophical orientation. This alternative philosophy appears to be an eclectic synthesis of idealism, progressivism and humanistic existentialism.

The second research question of this study was: Is there evidence in the nursing literature of a change in nursing philosophy since the first conceptual model was published in 1952? Nursing theory development, in the form of diverse nursing models, has illustrated a concerted effort by nurse scholars to develop a coherent philosophical foundation for the discipline of nursing. A philosophical analysis of the five conceptual models, developed from 1952 through 1988, substantiates that the contemporary conceptual nursing models of Rogers (1970) and Watson (1988) offer nursing a different or an alternative philosophical orientation. Generally, this alternative

philosophy distinguishes nursing from other disciplines and articulates the uniqueness of nursing as a human, rather than a medical science. It emphasizes holism, humanism and multiple realities. It incorporates a broad knowledge base with an increased emphasis on liberal education. It represents a view of reality and knowledge that is in a state of transition, moving away from a traditional, logical and empirical orientation toward a more holistic and humanistic orientation. It encourages multidimensional understanding and an evolving body of knowledge, with no static set of eternal truths.

The third research question of the study was: If there has been a change in nursing philosophy, what is the current dominant philosophy of nursing? The philosophical analysis of the five conceptual nursing models has indicated that there is currently no dominant nursing philosophy, but significantly different, competing nursing philosophies. Three of the conceptual models, developed by Peplau, Orlando and Roy, continue to cling to the traditional behaviorist philosophy espoused by the medical model. The two more recent models of Rogers and Watson, however, seem to indicate that a different philosophy is emerging in nursing. This evolving philosophy is moving away from scientific realism and behaviorism toward a philosophy characterized by holism and humanism.

The conceptual nursing models proposed by Rogers and Watson offer a pattern of philosophical themes that characterize a changing nursing philosophy. These themes can be summarized as follows:

Holism: Nursing is a holistic practice, with a focus on the whole person, including the environment within which individuals are located. Humans and the environment are viewed as unified and indivisible units that cannot be understood by the examination of their parts.

Humanism: Humanism places primacy in the individual human being. It emphasizes human uniqueness and individual differences by searching for understanding in the whole of diverse human experiences.

Process: There is a view of constant change, evolutionary in nature, in which the person and nature are in a state of continuous transition.

Consciousness: The knowing process is one of the evolution of human consciousness, proceeding from empiricism toward a state of self-transcendence in which the human's separateness from the environment dissolves. Health is maximal in this state of self-transcendence.

Openness: The interaction between the person and the world is dynamic and continuous.

Harmony: Harmony within the person and harmony between the person and environment are important aspects of health.

Noncausality: In general, the models reject the validity of searching for simple causal relationships in human behavior and in health and illness.

Space-time: Space-time forms a nonlinear, fluid relative matrix in which past and future merge into present.

Pattern: Pattern is a unique, holistic organismic force, resulting in the individual and the environment always changing in the direction of increased diversity and complexity.

These philosophical themes indicate an emerging nursing philosophy that is an eclectic synthesis of idealism, progressivism and humanistic existentialism and a movement away from the scientific realism and logical empiricism of medicine. The ontological view of this philosophy emphasizes the proposition that reality resides in the experiences of the person and is not absolute. Organicism and change that emphasize wholeness, context, open systems and continuous, creative change are stressed. It proposes a unitary nature of reality in which humans and nature are inseparable and connected. Humans and the environment mutually change each other and, in the process, become more complex and diverse.

The epistemic view of this changing nursing philosophy supports the belief that there is no ultimate or absolute truth. Knowledge is tentative. It is changing and constructed out of human experience. The development of knowledge is viewed as a never-ending process that arises from a synthesis of multiple ways of knowing. All kinds of knowledge, including both objective and subjective knowledge, are valued.

The values of this developing nursing philosophy emphasize the primacy of the individual human being and an understanding of the meaning of human experience. Values are not considered to be absolute, but evolve from human experiences. Values are examined within the context of the whole and are connected to social consequences.

All of the conceptual models espoused the value of caring. Although some of the models identified caring as the core or essence of nursing, an understanding of caring and how this concept is integrated into nursing's philosophy remains elusive. There is no consensus regarding what constitutes caring, the components of care, or the process of care. Some of the diversity in the models comes from the theorists' use of caring as both a noun and a verb. They view caring as a human trait, a moral imperative or ideal, an affect, an interpersonal relationship or a therapeutic intervention. Caring is identified as both a subjective experience and a physical response. Clarification of this concept and its relationship to nursing is needed.

In summary, although there is currently no one dominant nursing philosophy, it becomes apparent that a different philosophy, characterized by holism, progressivism and humanism, is emerging in nursing. This philosophy is rich in diversity. It incorporates actual practices and belief systems influencing nursing. It is becoming increasingly evident in nursing practice, contemporary nursing theory development, research methodologies employed to generate and validate knowledge, and has major implications for nursing education.

CHAPTER V

SUMMARY AND EDUCATIONAL IMPLICATIONS

Summary

Since 1952, nursing theory development has focused on the development of numerous nursing paradigms or abstract conceptual nursing models. This investigation was initiated for the purpose of examining the philosophical orientations of the conceptual nursing models in order to determine whether or not there has been a change in nursing philosophy and the implications that any philosophical change might have for nursing education. The following four research questions were posed: (1) What are the philosophical orientations of the conceptual models of nursing? (2) Is there evidence in the nursing literature of a change in nursing philosophy since the first American conceptual nursing model was published in 1952? (3) If there has been a change in nursing philosophy, what is the current dominant philosophy of nursing? and (4) What implications does the current philosophy of nursing have for nursing education?

Five conceptual nursing models were selected for analysis. Using the framework proposed by Fawcett (1989), the historical development, central focus, content, theoretical foundations, organization, structure, assumptions and values of the following conceptual nursing models were analyzed: the Psychodynamic Nursing Model of Hildegard Peplau (1952); the Deliberative Nursing Process Model of Ida Jean Orlando (Pelletier) (1961); the Unitary Human Beings

Nursing Model proposed by Martha Rogers (1970); Callista Roy's Adaptation Nursing Model (1976); and Jean Watson's Human Science and Human Care Model (1988).

An analysis of the five models revealed distinct differences among the models. Each of the models provided a different conceptualization and understanding of nursing. The models articulated different purposes and goals for nursing. They defined the four metaparadigm concepts of person, environment, nursing and health in diverse ways and at different levels of abstractions. The models also differed significantly in their derivation, development and structure. They defined different boundaries for inquiry and suggested different approaches to the development of nursing knowledge. Each of the models seemed to provide a distinct world view and cognitive orientation to nursing. Finally, the five conceptual nursing models represented various schools of thought within nursing, with different philosophical assumptions and values.

An analysis of the philosophical orientations (the ontology, epistemology and axiology) of each of the five conceptual nursing models, developed from 1952 through 1988, substantiated that although there is currently no one dominant philosophy of nursing, the contemporary conceptual nursing models proposed by Rogers and Watson offer nursing a different philosophical orientation. This different philosophy that is emerging in nursing articulates nursing as a human science, rather than a medical science. It represents a movement away from the behaviorism and scientific realism of

medicine, emphasized by the conceptual nursing models of Peplau, Orlando and Roy, toward a philosophy that is an eclectic synthesis of idealism, progressivism and humanistic existentialism.

This chapter concludes the study and addresses the final research question: What implications does the current philosophy have for nursing education? It discusses the implications of the study's findings for nursing education and makes recommendations for consideration.

Implications and Recommendations for Nursing Education

The emerging philosophy that supports contemporary nursing theory development, with its emphasis on holism, progressivism and humanism, with different views of reality, knowledge and values, has major implications for nursing education. It presents both a challenge and an opportunity to nurse educators to reflect critically on the nature of nursing education and nursing curriculum development.

Nursing's changing philosophy is a call for emancipation from singular and narrow views of what constitutes education. Adoption of the single Tylerian curriculum model has limited nursing education's vision of quality education and has inhibited the exploration of other curricular models. This different philosophy recommends consideration of theoretical pluralism and an examination of a variety of curricular models that are emerging in education. Models such as those representing feminist pedagogy, the critical social theories, cognitive theory, Heideggerian phenomenology and humanistic theory should be explored for their applicability to nursing education and congruence

with nursing's philosophy. The changing nursing philosophy provides a framework from which a variety of curricular models can be explored and evaluated.

First, models must be evaluated as to how curriculum is conceptualized. Curriculum can be defined in a variety of ways. It can be conceptualized as a program (Beauchamp, 1981, p. 206), a plan for learning (Saylor and Alexander, 1974, p. 6), as a set of experiences under the auspices of the school (Doll, 1978, p. 6), or as specific intended outcomes. These different views of curriculum do not seem to be compatible with nursing's evolving philosophy. They generally separate curriculum from teaching and the means from the ends of education and illustrate the traditional dichotomies found in education.

What is needed in order for nursing education to reflect the emerging philosophy is a view of curriculum that envisions the gestalt of education (holism) and views curriculum as beginning with individuals (humanism). Curriculum must be redefined as the interactions between teachers and students for the purpose of creating meaning. The models under consideration must be models that do not separate curriculum from teaching, teaching from learning, educational means from ends, or teacher from student. The models also must conceptualize curriculum within a theory-practice relationship. They must be eclectic, flexible models that represent curriculum as an integrated unity (whole) in which the basic components of curriculum (aims, goals and objectives; subject matter; learning activities; and evaluation) and the foundational aspects of curriculum (epistemology,

society/culture, the individual and learning theories) are interrelated and reciprocal (Zais, 1976).

The philosophical assumptions that influence judgments about nursing education also must be explicated in the models and evaluated. This forces nurse educators to think about the intentions of teaching, the values that are espoused and the purposes to be accomplished by education. Educational philosophy affects how one thinks about education. Greene (1986, p. 479) stated, "to examine philosophy with respect to teaching is to be concerned with clarifying the language used in describing or explaining the practice of teaching, to penetrate the arguments used in justifying what is done, and to make visible what is presumed in the formulation of purposes and aims."

In addition to redefining curriculum, the models also must reconceptualize knowledge and learning. New and dynamic conceptions of what knowledge is and how it is developed and evaluated are critical to exploring different curricular models for nursing education. The epistemic foundations of nursing's evolving philosophy suggest that knowledge can no longer be synonymous with content or subject matter. Knowledge must be viewed as contextual, created by each individual, and dynamic, rather than fixed and permanent. It also must be viewed in a way that espouses a belief in different ways of knowing and teaching-learning processes that incorporate not only rational, cognitive, technical, and empirical knowledge, but also call upon esthetics, ethical values, moral ideals, intuition, personal knowledge and process discovery.

The changing nursing philosophy invites nurse educators to consider curricular models that move away from what Freire (1986) calls the "banking model," and consider a variety of curricular models that do not lock students in a classroom to hose them down with microfacts. It requires curricular models that emphasize empowering students to acquire and analyze information on their own and actively involve students and teachers in the discovery process.

Nursing's emerging philosophy also would recommend a rethinking of learning. Learning cannot be characterized as merely a change in behavior or acquiring knowledge through the gathering and correlation of facts, but in seeing the significance of life as a whole, discovering values, and relating learning to personal reality. It must be viewed as a process in which the individual cultivates disciplined scholarship. It includes acquiring insights, seeing patterns, finding meaning and significance, seeing harmony and wholeness, making compassionate and wise judgments, grasping the deeper structures of knowledge, enlarging the ability to think critically and creatively, and finding new pathways to new knowledge.

Nursing philosophy's current emphasis on humanism also has implications for nursing education. Humanism is a belief in the primacy of the human being and in the power of human consciousness, human freedom, human imagination and human spirit as key components in teaching and learning. An approach to curriculum development and teaching within a humanistic perspective combines and integrates the cognitive with the beauty, art, ethics, intuition, esthetics and spiritual

awareness of human-to-human caring processes embedded in the curriculum and the teaching-learning process.

Adler (The Paideia Proposal, 1982) and Boyer (1989) remind nurse educators of the common traits that are shared in the recreation of the humanistic ideal and a humanistic curriculum: common humanity, personal dignity, human rights and aspirations, and a common, shared future destiny. They propose that general learning should be the possession of all human beings and contend that the features of a humanistic curriculum are connectedness with the world, empowerment of the human being, and the placement of knowledge within a social and ethical context. They stress encouragement of self-discovery in students, attention to the individual (both student and teacher) and contextual human meaning. This creates a context of community and responsibility and a democratization of education.

A humanistic perspective in nursing education would place primacy in quality student-teacher relationships. Student-teacher interactions would need to be restructured so that the student, and not the teacher or content, is at the center of the educational process. Students would need to be acknowledged as equal partners and active participants in learning. It would require a transformed relationship between the student and teacher and an opening up of the possibility of learning from one another. The traditional power relationships between student and teacher, therefore, would be transformed to an egalitarian, shared responsibility for learning. Teachers would need to convey to students a genuine concern for their present and future

welfare. Interactions would be based on mutual respect and caring rather than power and oppression. This change to a humanistic framework would provide the opportunity to liberate students so that they can value the contributions of others and focus on scholarship. It could emphasize flexibility and individual differences in how and what students learn.

A humanization and democratization of nursing education also would involve a realization that there are multiple views, agendas and accountabilities in education. Educators would need to recognize that there are many visions of the educational process and all voices need to be heard. It would suggest that hierarchies within nursing education must be eliminated. Hierarchies such as undergraduate vs. graduate faculties, tenured vs. untenured faculties, researchers vs. teachers, teachers vs. practicing nurses and students vs. faculty would need to be eliminated. It would require active partnerships as all educators, practitioners and students attempt to accomplish nursing's mission. Humanism would include abandoning the metaphors of paternalism and control and allow educators to shift their allegiances from content to genuine alliances with students. It also would liberate both students and educators from the authoritarian constraints of behavioral models as represented by specified behavioral objectives and the teacher and student roles and functions necessitated by these objectives. It would focus on engaging both students and educators in intellectual efforts necessary for the development of the creative thinking that is the mark

of an educated person. It would compel students to take the leadership and responsibility for their own learning agenda.

In addition, humanizing nursing education would recognize that transforming the curriculum commences with faculty development. Faculty will need guidance, help and support to grow and to develop for themselves a repertoire of teaching methods that support active educative and egalitarian learning. Until nurse educators' common and usual ways of perceiving and enacting the teaching roles are redefined, no other curriculum changes will effect substantive changes in nursing education.

As nurse educators explore changing the curriculum and attempt to embrace new models for nursing education, they need to be cautious. As Dewey (1963) observed, it is important that educators stop, look and listen whenever dramatic changes are proposed in education. Nurse educators must reflect on what has worked for nursing, what is inherently good and hold their mission clearly in their vision. Nurse educators also must realize that although worshipping objectives is not the answer, there may be an appropriate place for educational objectives in nursing education. In the 1960s, Mager insisted that if educators do not know where they are going, they may well end up somewhere else. Instructional objectives that are stated precisely in behavioral terms may be too mechanized and not appropriate for the learning needed for nursing, but unexplained learning experiences without clear purpose are equally dangerous.

Another concern that nurse educators must consider in exploring different curricular models is accreditation and licensure. The purpose of accreditation is to assure the public that academic integrity and quality are maintained. A latent function, however, is the maintenance of status quo. This emphasis constrains experimentation or at least inhibits visibility of innovation as educational programs seek to protect their accreditation status. Nurse educators must demand that the accreditation criteria be revised. Specifically, criteria for state approval and national accreditation of nursing educational programs must become more qualitative, rather than quantitative, be paradigm-free and stress research-based indicators of educational excellence.

The national licensure examination also must be revised. Currently, the examination consists of an objective examination that focuses on medical knowledge, rather than nursing knowledge. If nursing is to evolve as a human science, the examination must assess nursing, not medicine. In addition, different examinations must be developed and implemented for the different entry level practitioners. Nursing may benefit from exploring educational models used for the preparation of other professionals, such as the law, which have flexibility in curricular design, but still must prepare students for licensure examinations.

These changes in accreditation and licensure practices will not be easy. Nurse educators must collaborate, take risks and provide the leadership necessary to allow nursing educational programs to demonstrate that academic integrity can be achieved and maintained in

different ways. In addition, since the criteria that have been developed and used for the accreditation and approval of nursing educational programs are not research-based, there is a critical need for educators to investigate and develop indicators of educational excellence.

There is a growing sense of discontent in the continued use of the Tylerian behavioral model for all of nursing education. Reacting to decades of rigidly prescribed nursing curricula, preconceived ideas about the ways students learn and should be taught, and the repression of creativity, nurse educators now are challenged to examine new approaches to teaching and learning that are consistent with the philosophy that is emerging from contemporary nursing theory development. Many alternative models are available for debate. Different models for the different nursing educational programs, preparing different levels of nurses for different communities are needed. Diversity, rather than sameness, is recommended. It is important for nurse educators to remember, however, that they should be hesitant about adopting another single, enslaving model for nursing education. Any model necessarily limits one's vision of the possibilities of education.

It becomes apparent that the emerging philosophy in nursing would support a curriculum revolution in nursing education. Revolutions uncover and challenge the existing assumptions and meanings that are part of everyday practices and open up new possibilities in education. A curriculum revolution would force nurse educators to reflect on the ends and means of nursing education. It

would create a new consciousness about the place of nursing in responding to the health care needs of a changing democratic American society and nursing education's responsibility in educating compassionate, critically thinking nurses who can practice in both today's world of high-tech disease care and tomorrow's world of true health care. A curriculum revolution could assist nurse educators to deinstitutionalize the Tyler curriculum model and its mandated products; make nursing's emerging philosophy and education congruent; distinguish between learning and training; alter educators' perceptions of teaching and the role of the teacher; deemphasize curriculum development and concentrate on student and faculty development; and have as an underlying assumption that nursing is a human, not a medical, science.

Nursing's evolving philosophy would recommend the exploration of curricular models that can facilitate students to develop creative, scholarly, humanistic modes of nursing care and recognize nursing's movement toward a human science. These models must provide a nursing education aimed at social and human possibility--an education that teaches students to think as well as act; to both seek and doubt truth; to develop their own personal realities; to collaborate rather than compete; to respect multiple ways of knowing; to develop egalitarian rather than authoritarian relationships; to appreciate the values that make nursing a humanistic endeavor; to reevaluate their most basic ideas about human life; and to focus faculty's energies on the endeavor

called teaching so that nursing may evolve into a service committed to enlightened compassion and vigorous scholarship.

Finally, nurse educators must continue to focus on the development of a coherent philosophical foundation for the discipline of nursing. With the emergence of a disciplinary metaparadigm, the analysis of nursing's philosophy is an essential and active arena for scholarship.

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