We are IntechOpen, the world’s leading publisher of Open Access books
Built by scientists, for scientists

3,900 Open access books available
116,000 International authors and editors
120M Downloads

154 Countries delivered to
TOP 1% Our authors are among the most cited scientists
12.2% Contributors from top 500 universities

WEB OF SCIENCE™
Selection of our books indexed in the Book Citation Index
in Web of Science™ Core Collection (BKCI)

Interested in publishing with us?
Contact book.department@intechopen.com

Numbers displayed above are based on latest data collected.
For more information visit www.intechopen.com
Abstract

The development of nursing knowledge and history of nursing as a profession began with Florence Nightingale who served in the Crimean War by caring for the wounded in Scutari and her establishment of a School of Nursing at St. Thomas hospital in London. Nursing has since continued to evolve to its twenty-first-century focus, which entails sophisticated nursing theories that are utilized to guide research, practice, education, and administration. This chapter serves as an introduction to the nursing student and focuses on the definition of a nursing metaparadigm and its concepts. It briefly touches upon the history and growth of nursing as a profession since its inception. It gives the beginner nursing student an explanation of nursing theory and its separate subcomponents. It describes the relationship between nursing theory, practice, and research. Instructions are put forth as to how to formulate a research question. It gives a brief explanation of the different types of research design. The overall goal of the chapter is to assist the novice student to gain practical knowledge to begin a research study.

Keywords: philosophy, research practice/theory, philosophical focus

1. Introduction

The goal of this chapter is to gain an understanding of the basic nursing concepts which will enable the nursing student to formulate a research question. It begins with the discussion of the definition of the nursing metaparadigm and its components. It briefly describes the evolution of nursing knowledge and includes the state of nursing science as it exists in the United States. This is followed by a description of nursing models and theories and includes examples to illustrate the different levels of nursing theory development. This is followed by a brief introduction depicting the relationship between nursing theory and practice. The basic types of research are described, as well as practical tips for formulating a nursing research
question. An introduction referencing the influence of Western nursing scholars in other parts of the world is described. Tips for interdisciplinary collaboration amongst researchers with like interests and goals are put forth.

2. The nursing metaparadigm

The central themes and unifying concepts that form the basis of nursing in their broadest sense constitute the nursing metaparadigm. Traditionally speaking the four concepts inherent in the nursing metaparadigm are person, environment, health, and nursing [1]. The metaparadigm forms the backbone, figuratively speaking, of what it is that we as nurses do. These metaparadigm concepts are tied together by the laws that govern the highest function of the health of a human being, how the human being interfaces with the environment, and the process by which positive or negative changes in health ensue [1].

A person is defined as the one receiving the nursing care. Environment is viewed as the area or space wherein the person exists. Health is seen as the point where the patient is along the health-illness continuum. Nursing is the action taken by the nurse [2]. A nursing theorist defines each of these metaparadigm concepts in accordance with their worldview of nursing. Thus a metaparadigm can be thought of as an overarching principle or umbrella covering our outlook that defines our practice.

As a nurse, it is important to take an inventory of ourselves by examining how we were brought up, what we assume to be true, what beliefs we hold dear, and what our values entail. This will assist us in defining our worldview that guides and influences our practice. This can be done by examining our cultural beliefs, how we were raised as a child, parental relationships, era in which we were part of, social views, as well as any other influences that have had a major impact on our lives. Assumptions, beliefs, and values guide our practice. It is through the process of self-inventory and self-realization that one can identify their own unique worldview. It is equally important for a nurse to be able to understand the worldviews of the patients whom we serve. This enables us to convey understanding and compassion in our interactions, which ultimately promotes health and healing.

The study of how nurse scientists define metaparadigm concepts defines our profession.

As related to paradigms, Kuhn states, “By studying the and by practicing with them, the members of their corresponding community learn their trade” ([3], p. 43).

To illustrate, holism is a concept that is used in the nursing arena to define the metaparadigm concept of person. Embodiment is a unique state that refers to how patients experience themselves. Nursing is beginning to see that the understanding of patient embodiment is central to providing patient care. The author proposes that nursing is evolving to include the understanding of both the patient and the nurse embodiment as central to care for a patient. It is proposed that nurses face a challenge of reflecting on their own embodiment and whether their persona interferes with the practice of providing holistic care [4]. This implies the importance of self-knowledge as well as cultural sensitivity as a basis for holistic care.
3. History of the nursing knowledge

The history of nursing as a profession began with Florence Nightingale who served in the Crimean War by caring for the wounded in Scutari and her establishment of a School of Nursing at St. Thomas hospital in London. The 1900s–1940s marked the curriculum era in nursing. During this time emphasis was placed on the curriculum content needed to train nurses. The 1950s–1970s focused on the role for nurses and content for nursing research. This era also formulated the role and program content for the advanced nursing role and graduate education. The 1980s–1990s focused on nursing theory or how one looks at the way in which theories guide research and practice. Nursing in the twenty-first century focuses on the way in which nursing theories are utilized and how nursing theory guides research, practice, education, and administration [5].

4. What is nursing theory?

A nursing theory is “a creative and rigorous structuring of ideas that projects a tentative purposeful, and systematic view of a phenomenon” ([6], p. 106). A nursing theory contains concepts, definitions, relationships, and assumptions derived from models. The purpose is to describe, gain understanding, predict, and/or prescribe what will take place in phenomenon. The researcher uses either deductive or inductive reasoning to derive a theory [7]. Concepts are a part of a phenomenon and as such are abstract. Constructs on the other hand consist of groups of concepts. For example, patient-centered care is a construct. It can consist of many concepts which can include participation, respect, and collaboration. Theories can be formulated which center around assumptions referencing these concepts.

A grand theory is a type of theory that was originated by C.W. Mills. It is viewed as an abstract formal organization of concepts that are used to view and take precedence over the social world [8]. For example, complexity science is a twenty-first-century worldview that views the world as systems that are complex and interact in a dynamic interactive fashion which is unpredictable. It is not a single theory but a guiding framework. A key concept to complexity theory is the complex adaptive system (CAS). A CAS is a group of individual components that are interconnected in such a manner that the action of one changes that context of another. Families or committees are two examples. Systems have fuzzy boundaries, and this can lead to challenges in problem solving [8]. For example, suppose a day-care facility decided to change their hours from 0700 to 1900 to 0800–1600, one can realize the havoc that this would cause on family members that have set work hours, child routines, family and day-care budgets, and employers. Some of the other tenets of CAS are that agents respond to their environment by using an internalized set of rules and that these rules determine the agent’s actions. The agents in the system are adaptive and the systems are intertwined or embedded within other systems and evolve interdependently [9].

Middle-range theories were proposed by R.K. Merton. They consist of hypothesis that can be tested. They are made up of propositions and though abstract are derived from grand
theories. They are close enough to everyday observable data to be incorporated into a set of propositions [10]. They form the basis for clinical research and can be applied to multiple settings. For example, concepts such as pain, stress, and comfort have been instrumental in defining a theoretical basis for nursing practice through the use of middle-range theories early in the evolution of nursing.

_Nursing models_ differ from nursing theories in that a model provides us with a structure whereas a theory is a set of ideas.

A case can be made such that consideration is given to the use of grand theories as a context for their work due to the complexity of patient-care issues. An example is cited referencing the impact of conditions such as HIV-AIDS and the impact not only on the client but the family, community, nation, and the world. Neuman’s systems model was referenced as a good choice [11].

5. The connection between nursing theory practice and research

Research ignites nursing knowledge. The structure of nursing knowledge is composed of metaparadigm concepts, philosophical positions, conceptual models, nursing theories, and nursing indicators [12]. These structural components guide research which helps in further defining practice. Implementation of evidence-based practice serves as the impetus for further research thereby refining our nursing scientific basis for practice. Nursing philosophy is “a statement of foundational and universal assumptions, beliefs, and principles about the nature of knowledge and thought (epistemology) and about the nature of the entities represented in the metaparadigm (i.e., nursing practice and human health processes [ontology])” ([13], p. 76).

6. Developing nursing knowledge

Using a theory to guide a research study guides the researcher in formulating the research question, hypothesis/hypotheses that are being tested, and guides the researcher in interpreting the results. The first step in formulating a research question is determining the area of interest and a tentative focus for a study question. Once the focus is identified, it is best to go to the literature to see what has been studied, what literature gaps exist, and how you can formulate a research study that will both assist you in your clinical inquiry and be of most benefit to the profession. It is also important to identify a theory that reflects your own beliefs, values, and philosophy. It is equally important to identify a theory that naturally lends itself to guiding the study. The PICOT method is a concise method utilized to formulate a research question. (P)—Population refers to the sample of subjects that you will gather for your study. (I)—Intervention refers to the treatment that is the focus of the study. (C)—Comparison refers to the reference group that you will compare to your treatment group. (O)—refers to how you plan on measuring the effectiveness of your intervention. (T)—Time refers to the time period duration for your data collection [14].
Once your research topic’s philosophical focus and framework are identified, the next step is to determine what type of design suits your study. In general, there are three broad types of research designs. These are qualitative, quantitative, and mixed methods. Quantitative research is often termed “experimental research.” It uses statistics to measure results. Qualitative research on the other hand is a form of research used to explain people’s beliefs, attitudes, and behaviors that occur in a social setting. The data that is obtained is nonnumeric. The mixed method approach utilizes a combination of qualitative and quantitative research. Some of the subtypes of quantitative include the experimental, correlational, or survey approach. The aim of experimental research is to determine cause and effect. Correlational research does not seek to find causation but correlations or associations. Survey research involves the administration of a questionnaire to a group of people. General types of qualitative research can include but are not limited to grounded theory, ethnographic, and narrative research. Grounded theory research is the study of a concept. It allows you to develop a theory concerning the concept. Ethnographic research is the study of people and cultures. Narrative research focuses on the lives of people, as they tell their own story.

Factors to consider in choosing your method of study can include what you want to study, your time limits, availability of your study sample, institutional requirements, and results of your literature search. These factors as aforementioned must be incorporated in a well-fitting philosophical focus and framework. It is in this way that your findings once incorporated into practice can generate further research.

7. Cross-country development of nursing knowledge

The development of nursing theory and knowledge development in other countries has been influenced by the United States. For example, nursing theory, its relationship to knowledge development, and scholarship in Iceland is 50 years old. University-based nursing education was established at the University of Iceland in 1973. This was the first baccalaureate nursing program in Europe. Nursing concepts such as holism, caring, adaptation, patient respect/partnerships, therapeutic relationships, and education as derived from Nightingale, Henderson, Peplau, and Roy influenced this curriculum. The introduction of some nursing theories, particularly Henderson’s needs-based theory, along with United States nursing scholars such as Benner, Newman, Orem, and Parse, were cited as major influences in guiding practice [15].

China experienced a 30-year abolition of nursing academia from 1953 to 1983. United States’ influence on nursing curriculum became apparent in 2001. Textbooks included information on US nursing theorists such as Henderson, Orem, Peplau, Rogers, and King. Prior to this the curriculum was medically focused and nurses were taught by physicians, due to lack of nursing faculty [16].

Nursing practice and education in Australia originated from the British tradition influenced by Florence Nightingale. The focus was on the medical model of care until the late 1960s. Henderson’s nursing perspective influenced practice in the 1970s. Though Western nursing theory was taught in the schools, Australian nursing leaders cautioned against importing these
theories on the premise that nursing being a practice discipline and influenced by contextual factors is most appropriately developed through the study of nursing practice in context [17]. Nevertheless, health for all and shared resources has been a goal of the World Health Organization (WHO) since the 1970s. The question arises as to how we as nurses can aspire to this goal. Though implementation of nursing interventions may present more of a challenge in different areas of the world, due to such factors as lack of resources and different government infrastructures, interdisciplinary collaboration can be a means to troubleshoot the different challenges that arise. After the area of research is defined, it is suggested that the novice nurse seeks mentors that have like research interests and if possible from other areas of the world. In choosing a mentor, it would be important that the novice nurse not only chooses a colleague with the same interest but with a similar nursing philosophy and worldview. If the topic is new and unexplored, qualitative research may be a good place to start. If the literature review reveals a fair amount of studies with standardized tools and metrics, quantitative research may be the likely choice. Social media, blogs, Skype, and teleconferences are useful tools for developing intercollaborative research studies. Differences in outcomes can not only inspire new research to gain further understanding but also add further insight into the growing body of knowledge that is being developed.

8. Conclusion

In summary, the definition of a nursing metaparadigm and its related concepts has been reviewed. The history and growth of nursing as a profession has been briefly described. The relationship between nursing theory, practice, and research has been proposed. Pointers have been suggested to assist the student in the formulation of a research question. The chapter concludes with a brief explanation of the different types of research design and tips for assisting the novice student to gain practical knowledge to begin a research study and launch their new career.

Recommendations

It is recommended that the novice nurse take a self-inventory to define their unique world view of nursing. Once this is defined, a research interest for study needs to be identified. This is followed by an extensive literature search. During this time it is important to identify a theoretical framework which can guide your research. It is also important to identify potential mentors that will guide you along the way. Once gaps in the literature are identified, the next step is to develop the research question and method. It is important to network with colleagues with like interests to develop intercollaborative partnerships so that collectively we as nurses can further the WHO goal of health for all and shared resources.

Acknowledgments

Frances Mary Johnson, PhD, ANP-BC, AOCN, CNS currently works for the Department of Defense, Carl R. Darnall Army Medical Center in Fort Hood, Texas, as an Oncology Nurse
Practitioner. She has received her undergraduate nursing degree from Fairfield University in Fairfield, Connecticut, and MSN from Boston University in medical surgical nursing with an oncology focus in the CNS tract. She later received her nurse practitioner certificate from the University of Texas with a dual certification in adult health and oncology. She received her PhD from Texas Woman’s University. Her experience includes extensive clinical care in both the oncology and primary care settings and extensive work in writing oncology programs standards. Her research interest is Oncology Nurse Practitioner Patient Navigation. She has published several articles and written and co-authored a book chapter on this topic. Her pastimes include piano, yoga, writing, hiking, and pet care.

Conflict of interest

There are no conflicts of interest.

Author details

Frances Mary Johnson

Address all correspondence to: roseypumpkin@mail.com
Department of Defense, Carl R. Darnall Army Medical Center in Fort Hood, Texas, USA

References


