

Nursing Theory Makes a Practice Turn in the 21st Century

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Theme: Epistemology

Contribution to the discipline: Provides evidence of the connection between theory and practice by showing that the data for theory is found in the nurse and patient relationship.

Abstract

The author assumes that practice became prominent in nursing theory in the first two decades of the 21st century. The end of the last century saw a burgeoning of literature on what is known as grand theories, their implementation, and evaluation. The era of healthcare quality research began when the Institute of Medicine issued a report on building a safer health system. At this time, the 21st-century literature in nursing took a distinct turn toward practice, influencing nursing theory. The movement to individualize care acted to further this influence. The nurse and patient relationship is the source of data for knowledge development. Established research approaches such as grounded theory and new approaches such as story theory were being used to create nursing theory from practice. Grand theory work moved to the development of instruments to measure the effects of theory in practice, such as that of Watson and Roy. The middle-range theories were developed and seen as closer to and easier to use in practice. The evidence-based practice movement also contributed to the role of theory in practice. These knowledge developments led to nurses having expanded roles in nursing.

Keywords (Source DeCS)

Nursing theory; nursing practice; quality of health care; grounded theory; experimental studies, experimental epidemiology.

4 La teoría de la enfermería da un giro hacia la práctica en el siglo XXI

Resumen

La autora asume que la práctica se volvió prominente en la teoría de la enfermería en las dos primeras décadas del siglo XXI. Al final del siglo pasado, se vio un florecimiento de la literatura sobre lo que se conoce como grandes teorías, su implementación y evaluación. Además, la era de la investigación sobre la calidad de la atención médica comenzó cuando el Instituto de Medicina publicó un informe sobre la construcción de un sistema de salud más seguro. En ese momento, la literatura de enfermería del siglo XXI dio un giro distinto hacia la práctica, que influyó en la teoría de la enfermería y el movimiento para individualizar el cuidado actuó para promover esta influencia. La relación enfermera-paciente se convierte en la fuente de datos para el desarrollo del conocimiento. Se estaban utilizando enfoques de investigación establecidos, como la teoría fundamentada, y nuevos enfoques, como la teoría de historias, para crear la teoría de la enfermería a partir de la práctica. El trabajo de la gran teoría se trasladó al desarrollo de instrumentos para medir los efectos de la teoría en la práctica, como el de Watson y Roy. Por otra parte, las teorías de rango medio se desarrollaron y se consideraron más cercanas y más fáciles de usar en la práctica. El movimiento de la práctica basada en la evidencia también contribuyó al papel de la teoría en la práctica. Estos desarrollos de conocimiento llevaron a las enfermeras a ampliar sus funciones en la enfermería.

Palabras clave (Fuente: DeCS)

Teoría de enfermería; práctica de enfermería; calidad de la atención de salud; teoría fundamentada; estudios experimentales; epidemiología experimental.

Resumo

Neste texto, assume-se que a prática se tornou predominante na teoria de enfermagem nas duas primeiras décadas do século XXI. No final do século passado, viu-se o florescimento da literatura sobre o que se conhece como “grandes teorias”, sua implementação e evolução. Além disso, a era da pesquisa sobre a qualidade da atenção médica começou quando o Instituto de Medicina publicou um relatório acerca da construção de um sistema de saúde mais seguro. Nesse contexto, a literatura de enfermagem do século XXI deu uma reviravolta diferente no sentido da prática, o que influenciou a teoria de enfermagem, e o movimento para individualizar o cuidado agiu para promover essa influência. A relação enfermeiro-paciente se converteu na fonte de dados para o desenvolvimento do conhecimento. Eram utilizadas abordagens de pesquisa estabelecidas, como a teoria fundamentada, e novas abordagens, como a teoria de histórias, para criar a teoria de enfermagem a partir da prática. O trabalho da grande teoria passou ao desenvolvimento de instrumentos para medir os efeitos da teoria na prática, como o de Watson e Roy. Por sua vez, as teorias de médio alcance foram desenvolvidas e consideradas mais próximas e mais fáceis de usar na prática. O movimento da prática baseada em evidências também contribuiu para o papel da teoria na prática. Esse desenvolvimento de conhecimento levou os profissionais de enfermagem a ampliar suas funções na área.

Palavras-Chave (Fonte: DeCS)

Teoria de enfermagem; prática de enfermagem; qualidade da assistência à saúde; teoria fundamentada; estudos experimentais; epidemiologia experimental.

Introduction

Nursing theory in the 21st century took a decided turn toward nursing practice. Coinciding with the founding of the *Aquichan* journal, there are signs of a practice turn for nursing theory taking place in many ways throughout nursing publications. As early as 1969, Ellis wrote about the practitioner as a theorist. She noted that the nurse selects an approach, uses it, modifies it, and expands it with every patient (1). Ellis pleaded for making nursing theory explicit by having it emerge from practice. Unfortunately, these pleas lay dormant for three decades. This delay was noted when I identified the contributions of theoretical work in nursing in the 20th century (1). By the end of the last century, theory developments included maturing of the discipline, clarifying the theoretical focus of nursing as holistic persons with processes and patterns for environmental integration to attain health, a plurality of grand theories for articulating and testing theories in practice and research, identification of the mutual impact of theory and education, major conferences, and contributions globally. By the 21st century, given several influencing factors, the role of practice became prominent in nursing theory. This reflection article aims to identify these factors and examine their effect on nursing as a science and as a profession.

Factors Influencing Nursing Theory Development

At the turn of the century, changes in health care brought about significant changes in nursing theory development. In 1999, the United States of America Institute of Medicine issued a report *To Err is Human: Building a Safer Health System* (2). This report ushered in an era of healthcare quality research. Growing information technology made it possible to use administrative data to identify preventable adverse events. At the same time, computers went from health care business offices to clinical units. The initial stage of the Human Genome Project was completed in February 2001, which provided a whole new kind of information for knowledge development. Patients were brought closer to their own data. Nurses in practice were on the front line of these changes. Nurses relating concepts into theories responded with a heightened awareness of these changes and put practice central to their thinking.

Clinical Practice as Basis of Theory Development

Scholars have called theory the carrier of scientific knowledge. In nursing, theory has a pragmatic meaning. The relevant phenomena are explained by describing the patterns, processes, or mechanisms considered to be producing or influencing them in significant ways (3). Further, as a social practice, nursing science deals with patterns and processes of human and environment interactions. In any approach to individualize health care, including precision health, the

nurse and patient interactions are the key source of data for such care. Nursing theory describes the phenomenon of nursing, which occurs in practice as nurses interact with patients.

Well-established and newer research approaches look at nurse-patient relationships to develop new theories. For example, as a qualitative approach to research, grounded theory has long been used to develop nursing theories for practice. Grounded theory was developed in sociology and moved quickly into nursing knowledge development (4, 5). In this approach, the theorist begins with some general ideas about the area of interest. These ideas may be abandoned as the theorist moves back and forth from practice to thinking about practice. Observations are made and then coded. This approach is still widely used. For example, Alyousef et al. used grounded theory to explore the contributory factors toward childhood obesity and being overweight in Saudi Arabia and the Gulf States (6).

More recently, Smith and Liehr developed story theory from their practice and research experience (7). They found that health-promoting change was fostered when a person told the story of a meaningful event such as teen pregnancy or living through a cardiac event. Newman's unitary-transformative world view provides assumptions about persons and their interaction with the environment, which affords connection in the developing story (8). The nurse provides the opportunity for intentional dialogue. The storyteller makes explicit what has been tacit, and this creates moments of ease. With this movement, the person can resolve the health challenge. The authors provide specific guidelines for nurses to use story theory, and at the same time, generalizations are made to create new theories from practice.

Other developments of the practice turn in nursing theory in the 21st century derive from the theory developments of the last century. As noted, the late 20th century was rich in the creation of what was called grand theories. The work of Johnson, Orem, King, Roy, Neuman, Rogers, Parse, Newman, Leininger, and Watson became widely known and studied (9-18). In the 21st century these theories, derived from practice were implemented and tested in practice. Younas and Quennell noted that theory-guided practice improves practice by articulating what nurses do and why (8). Based on this belief, the author reviewed experimental studies of Orem, Roy, and Peplau conducted in Iran, the United States, and Turkey (10, 12, 19). Among the 35 studies, all study outcomes were improved in 26 studies, and at least one improvement was noted in the remaining nine studies.

Of the grand theorists, Parse, Watson, and Roy continue publishing related to their theory work. For others, what I have called second-generation theorists have taken over. Nursing as a profession and discipline is fortunate that these successors have continued the work of major theorists and made modifications in today's clinical world. For example, Taylor extended Orem's concepts to families, groups, and communities with self-care deficits and additional

conditioning factors (20). Parse has published ten editions of an introductory book on her view of nursing as a human becoming, the latest being 2010 and a significant article in 2021 that expands on her central concept of living quality (15,21). Watson has updated the basic book on her nursing theory as caring over several years, specifically in 1985, 1999, 2006, and 2008 (22-25).

Further, she and others have authored related works developing her Caritas concepts (11). Roy has five editions of her introductory textbook published [*The Roy Adaptation Model*] in 1976, 1984, 1991, 1999, and 2009. In addition, she has published books in 1999 and 2014 that review research based on the Roy Adaptation Model. With other authors, Roy also has numerous articles on the use of the model.

Relative to our view of theory derived from practice, Parse noted that living quality occurs when the human universe is living in the moment of the emerging now (26). Parse would thus find new nursing theory in a current nurse-patient relationship. For both Watson and Roy, the practice turn included the development of instruments to measure patient outcomes. Watson's current work focuses on an instrument developed from practice and used in practice and research. Scholars have identified the Watson Caritas Patient Score® (WCPS) as a reliable and valid instrument used in hospitals and health care systems to assess patient perspectives of caring practices of hospital staff (27). Measurements from the patient's perspective is an important turn for nursing theory in the 21st century. Roy has initiated a research program with the core concept of coping that includes the development and use of *The Coping and Adaptation Processing Scale: Short Form* (CAPS: SF) (28).

The development of the CAPS: SF, in particular, reflects the relationship between practice and theory. Stress and coping were long used as concepts in psychology. In 2007, Aldwin noted that dealing with measurement was still the most controversial issue in the field (29). Given the centrality of the concept of coping in the Roy Adaptation Model, Roy began working on clarifying this concept through theoretical and empiric work over decades (12). Simple interviews with hospitalized patients were her starting point. For patients newly admitted to the hospital, she asked them to describe how they had handled the situation when the doctor told them they had to go to the hospital. Probes involved what they thought; how they felt. For patients admitted to the hospital for diagnostic tests, she asked how they had handled the threat of such tests. Inferences were made of the coping processes considering the cognator and regulator, the self-concept adaptive mode, and language from a literature review. Patients who were in the hospital longer were asked about how they handled being in the hospital. A similar analysis for both groups ($n = 10$) resulted in 16 different coping processes in the self-concept adaptive mode, six in role function, and four in interdependence.

Another approach to identifying coping was examining nursing care plans written by student nurses in schools where the Roy Adaptation Model was used as the basis of the curriculum ($n = 37$). Sixteen

coping processes were identified in the self-concept mode, 11 in role function, and seven in interdependence in the resulting analysis. In developing a middle-range theory of coping and reflecting on her advanced clinical practice in neuroscience nursing, the theorist developed a total of 72 coping processes (30).

Two Ph.D. students gave the list of strategies along with each one's dissertation work. Each study had over 300 subjects. One sample of patients with chronic neurologic deficits filled out the instrument in English in the USA. The second group with cardiac conditions was in Central America and used the Spanish version. With these large samples, it was possible to develop a 47-item Coping and Adaptation Processing scale. The instrument had good psychometric properties and was widely used. The need to shorten the scale became evident from use with older populations and varying cultures globally. To avoid the limitations of Classical Test Theory (CTT), Item Response Theory (IRT) was used to create a 15-item scale that was metrically equivalent across samples while maximizing precision and ensuring adequate content coverage of middle-range theory. The CAPS: SF has been widely used in both practice and research. The nursing practice influence on this instrument development is clear from the original short interviews with ten patients to the large samples of people with frequently occurring chronic conditions (31).

Further evidence in the literature of the last 20 years of a turn toward theory related to practice is noted in middle-range theory (MRT) development. Middle-range theory had long been identified as significant for nursing knowledge development. However, as late as 1999, Chinn and Kramer selected middle-range theories in an appendix of the fifth edition of this popular nursing theory book (32). By definition, middle-range theory is closer to practice. Theories at this level have a limited number of variables and are limited in scope. They can be used in given practice settings, yet some MRTs can be generalized across populations and settings. Examples are Mishel's theory of uncertainty and Pender's health promotion model. In 2014, McEwen and Wills noted that the number of MRTs developed and used by nurses grew significantly over the previous two decades (33). The authors cite examples of social support, quality of life, and health promotion. Smith and Liehr edited books on middle-range theories. In the first edition of their book in 2003 (34), eight middle-range nursing theories were presented, and in the 2018 edition of the book, 13 theories (35). In 2010, Meleis put together in book form the writings on transition to bring theoretical coherence to this central middle-range concept (36). The level of generality of middle-range theories makes it possible to develop interventions for practice. In addition, MRTs are used to generate hypotheses about practice phenomena to be tested in research.

Another area of literature development that reflects nursing theory related to practice in the 21st century is evidence-based practice. In medicine, the evidence-based practice movement began in the late 1980s. The aim was for practice to be grounded in quantitative re-

search based primarily on randomized clinical trials, meta-analyses, or outcome studies. By the first decade of the 21st century, nurses began to challenge this narrow view of knowledge for practice. Based on the nature of nursing, nurse authors called for beginning with questions from practice and using multiple methods of knowledge development. In 2010, Melnyk and colleagues offered a simplified problem-solving method to delivering health care that integrates the best evidence from studies and patient-care data combined with clinician expertise and patient preferences and values (37). Roy developed criteria for levels of evidence-based practice (12). The theorist recognized that some propositions were unequivocally supported by more than one study, were low risk, and had a high clinical need. These could have a high potential for implementation in practice, given clinical judgments based on the other sources of evidence. For propositions that are supported, but generalizability or risk is unclear and there is high clinical need, further clinical evaluation may be needed before implementation. The theorist recognizes the significant role of practice in knowledge implementation.

Changes in nursing education in the 21st century also show evidence of a turn toward practice. In 2004, the American Association of Colleges of Nursing (AACN) endorsed a decision to move the preparation necessary for advanced nursing practice from the master's degree to the doctorate level. In 2014, the RAND Corporation was commissioned to conduct a national study on the Doctor of Nursing Practice (DNP) and found many programs developed and graduates effectively being used on practice and education (38). However, most advanced practice education was still in master's programs.

Conclusions

The 21st century has been rich in knowledge development for nursing. The richness has been enhanced because nursing theory in the 21st century has taken a distinct turn toward practice. This brief review provides clear and convincing evidence from methods used, to the level of theory created, to new practice roles, that the literature shows a decisive turn for theory development to be rooted in nursing practice. This development was needed and has been effective for knowledge development in nursing as a practice and academic discipline.

Conflicts of interest: None declared.

References

1. Rosemary E. The Practitioner as Theorist. *Am J Nurs.* 1969;69(7):33. DOI: <https://doi.org/10.1097/00000446-196907000-00014>
2. Institute of Medicine (US) Committee on Quality of Health Care in America. *To Err is Human: Building a Safer Health System.* Kohn LT, Corrigan JM, Donaldson MS, editors. Washington (DC): National Academies Press (US); 2000.
3. Reed PG. Explanatory power and nursing theory. *Nurs Sci Q.* 2020;33(3):229–233. DOI: <https://doi.org/10.1177/0894318420920584>
4. Glaser BG, Strauss AL. *The discovery of grounded theory: Strategies for qualitative research.* Chicago, IL: Aldine; 1967. DOI: <https://doi.org/10.1097/00006199-196807000-00014>
5. Quint JC. The case for theories generated from empirical data. *Nurs Res.* 1967;16(2):109–113. DOI: <https://doi.org/10.1097/00006199-196701620-00003>
6. Alyousef SM, Alhamidi SA. Exploring the Contributory Factors Toward Childhood Obesity and Being Overweight in Saudi Arabia and the Gulf States. *J Transcul Nurs.* 2020;31(4):360–368. DOI: <https://doi.org/10.1177/1043659619868286>
7. Smith MJ, Liehr PR. *Middle range theory for nursing.* 4th edition. NY, NY: Springer; 2018. DOI: <https://doi.org/10.1891/9780826159922>
8. Newman MA, Sime AM, Corcoran-Perry SA. The focus of the discipline of nursing. *ANS.* 1991;14(1):1–6. DOI: <https://doi.org/10.1097/00012272-199109000-00002>
9. Johnson D. Behavioral Systems Model. FITNE; 1997
10. Orem DE. *Nursing concepts of practice.* St. Louis, MO: Mosby; 2001.
11. King IM. King's conceptual system theory of goal attainment, and transaction process in the 21st century. *Nurs Sci Q.* 2007;20(2):109–116. DOI: <https://doi.org/10.1177/0894318407299846>
12. Roy C. *The Roy adaptation model.* 3rd edition. Upper Sadler River (NJ): Pearson; 2009.
13. Neuman BM, Fawcett J. *The Neuman systems model;* 2011. DOI: <https://doi.org/10.1177/0894318412457055>
14. Rogers M. *Nursing: A science of unitary human beings.* In *Conceptual Models for Nursing Practice.* 3rd edition. Norwalk: Appleton & Lange; 1989.
15. Parse RR. *Illuminations: The human becoming theory in practice and research.* Jones & Bartlett Learning; 1999.
16. Newman MA. *Health as expanding consciousness.* Jones & Bartlett Learning; 1999.
17. Leininger M. Leininger's theory of nursing: culture care diversity and universality. *Nurs Sci Q.* 1988;2(4):152–160. DOI: <https://doi.org/10.1177/089431848800100408>
18. Watson J. The theory of human caring: Retrospective and prospective. *Nurs Sci Q.* 1997;10(1):49–52. DOI: <https://doi.org/10.1177/089431849701000114>
19. Peplau HE. *Interpersonal Relations in Nursing.* New York: G. P. Putnam; 1952. DOI: <https://doi.org/10.1097/00000446-195206000-00062>
20. Taylor SG. Dorothea Orem's Legacy. *Nurs Sci Q.* 2011;24(1):5–6. DOI: <https://doi.org/10.1177/0894318410389064>
21. Parse RR. Living quality: A human becoming phenomenon. *Nurs Sci Q.* 2013;26(2):111–115. <https://doi.org/10.1177/0894318413477145>
22. Watson J. *Nursing: Human Science and Human Care, A Theory of Nursing.* Norwalk, CT: Appleton-Century-Crofts; 1985.
23. Watson J. *Nursing: Human science and human care: A theory of nursing.* National League for Nursing; 1999.
24. Watson J. Part one: Jean Watson's theory of human caring. In: ME Parker, editor, *Nursing theories and nursing practice;* 2006, p. 295–302.
25. Watson J. *Assessing and measuring caring in nursing and health science;* 2008.
26. Parse RR. Nursing science: the transformation of practice. *J Adv Nurs.* 1999;30(6): 1383–1387. DOI: <https://doi.org/10.1046/j.1365-2648.1999.01234.x>
27. Watson J, Brewer BB, D'Alfonso J. *Watson Caritas Patient Score (WCPS).* Boulder, CO: Watson Caring Science Institute; 2010.
28. Roy C, Bakan G, Li Z, Nguyen TH. Coping measurement: Creating short form of Coping and Adaptation Processing Scale using item response theory and patients dealing with chronic and acute health conditions. *Appl Nurs Res.* 2016;32:73–79. DOI: <https://doi.org/10.1016/j.apnr.2016.06.002>
29. Aldwin CM. *Stress, coping, and development: An integrative perspective.* Guilford Press; 2007.
30. Roy C. Synthesis of a middle range theory of coping. In: Roy C, editor, *Generating middle range theory: From evidence to practice.* Springer publishing company; 2013.
31. González Y. Efficacy if two interventions based on the theory of coping and adaptation processing. *RAA Rev.* 2007;11(1):4.
32. Chinn PL, Kramer MK. *Theory and nursing: integrated knowledge development [Internet].* 5th edition. Mosby; 1999
33. McEwen M, Wills EM. *Theoretical Basis for Nursing.* 5th edition. LWW. Available from: <https://www.amazon.com/Theoretical-Basis-Nursing-Melanie-McEwen/dp/1496351207>
34. Smith MJ, Liehr P. The theory of attentively embracing story. In: *Middle range theory for nursing;* 2003, p. 167–187.
35. Smith MJ, Liehr PR, editors. *Middle range theory for nursing.* Springer Publishing Company; 2018. DOI: <https://doi.org/10.1891/9780826159922>
36. Meleis AI. *Transitions theory: Middle range and situation specific theories in nursing research and practice.* Springer publishing company; 2010.
37. Melnyk BM, Fineout-Overholt E, Stillwell SB, Williamson KM. Evidence-based practice: Step by step, the seven steps of evidence-based practice. *Am J Nurs.* 2010;110(1):51–53. DOI: <https://doi.org/10.1097/01.NAJ.0000366056.06605.d2>
38. Auerbach DI, Martsolf GR, Pearson ML, Taylor EA, Zaydman M, Muchow AN, et al. *The DNP by 2015: A Study of the Institutional, Political, and Professional Issues that Facilitate or Impede Establishing a Post-Baccalaureate Doctor of Nursing Practice Program.* Santa Monica, CA: RAND Corporation; 2015. Available from: https://www.rand.org/pubs/research_reports/RR730.html