Exploring conceptual and theoretical frameworks for nurse practitioner education: a scoping review protocol

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Review question/objective

The objective of this review is to examine conceptual and/or theoretical frameworks that are relevant to nurse practitioner education.

The specific review question is: What conceptual and/or theoretical frameworks are available that are relevant to the structuring of nurse practitioner education?

Background

The use of conceptual and theoretical frameworks to organize the educational curriculum of nursing programs is essential to protect and preserve the focus and clarity of nursing's distinct contribution to health care.[1] Conceptual frameworks of nursing provide a means to look at nursing in relationship to external factors, thereby assigning meaning to the practice.[1] Graduate level nursing education in the preparation of Nurse Practitioners (NPs) specifically and Advanced Practice Nurses (APNs) in general, is significantly compromised by the tendency to conceptualize the learning in these complex programs as being primarily related to skills-based tasks and competencies alone. According to Baumann,[2] advanced nursing education must focus on the uniqueness of the NP position, in contrast to other health care professions. To do this, Baumann[2] suggests using a conceptual nursing model and nursing theory as opposed to a strictly biomedical model. This allows NPs to interpret information in a way that differs from the strict biomedical model, providing opportunities for the NPs to be truly present in the lives of their patients.

Canadian Nurse Practitioner (NP) practice competency documents are based primarily on the Canadian Nurses Association (CNA) Nurse Practitioner (NP) Core Competency Framework.[3] This document defines the core set of entry-level competencies required for all NPs to practice in all

Canadian jurisdictions, settings and client populations. The Core Competencies in the CNA NP Framework are organized within four main categories: professional role, responsibility and accountability; health assessment and diagnosis; therapeutic management; and health promotion and prevention of illness and injury. Although vital to the organization of provincial entry-level registration standards, this framework provides little direction to educational providers for curricula organization and philosophical perspectives.

The Canadian Association of Schools of Nursing developed a national framework for NP education[4] following a multi-phase consultation and literature and curriculum synthesis project. While the task force addressed the guiding principles and essential components of NP education along with contextual factors that impact on the delivery of curricula in Canadian jurisdictions, the philosophical approaches guiding and organizing the education were not addressed.

A similar set of documents has been created in the United States by the National Organization of Nurse Practitioner Faculties (NONPF).[5] These documents are organized by six population level foci (including the specialty of family/individual across the lifespan) and outline core competencies for entry to practice and registration and educational standards. The Core Competency documents provided by the NONPF are presented in the same manner as the CNA NP Framework and likewise, do not provide a guiding or organizing framework or philosophy for NP education.

A full curriculum overhaul based on the NONPF competency requirements was performed at a university center in Oregon.[6] The new curriculum was based on competencies that students must acquire, rather than learning objectives.[6] While the NONPF Framework does provide an extensive list of entry-level requirements for NPs, the challenges faced by the institution as it aimed to incorporate the framework into the curriculum clearly provide evidence that these overarching frameworks need to include both a philosophical and organizational component to help guide educators.

Conceptual frameworks in graduate nursing education

Conceptual frameworks are useful for establishing a congruent relationship between program curricula, objectives and content. Walker and Avant [7] advance the utility of conceptual frameworks as providing the logic behind the interrelationships of terms and variables, and improving explanation and understanding. Gold, Haas & King [1] assert that conceptual frameworks facilitate grounding of a nursing *lens* in the curricula of advanced practice nursing programs. It has been noted that newly practicing NPs have demonstrated an allegiance with *medical model* thinking, second only in importance to wellness/health promotion considerations.[8] Blasdell and colleagues [9] surveyed 188 practicing NPs to investigate the relationship between education and the use of theory in clinical practice. Educated graduate NPs rated the importance of nursing theory to the NP practice role significantly higher than did diploma and baccalaureate degree NPs (4.05±2.06 versus 2.65±1.69, p<.001) but both groups rated the nursing models as less important for practice than a medical model approach.

Huckabay[10] highlighted the need for the use of a harmonized nursing model at the undergraduate level to ensure that students have a thorough understanding of what nursing is and what nursing care entails. At the graduate level, Huckabay[10] suggested the use of multiple nursing models, depending on specialty. Regardless of the educational level, a conceptual framework used for education must enable nurse educators to have sufficient guidelines to construct a curriculum and determine what knowledge and skills are needed by the nursing students.[11] Further, Furlong[12] identified the need for Advanced Practice Nursing (APN) curriculae to be innovative and critically reflective, preparing students to be readily adaptable to challenges in the work place. Furlong[12] suggests that to do this,

the curriculum must rely upon an interdisciplinary framework to deliver content. Gold, Haas & King[1] suggest that core curricula based on a medical model or a skill-related task list do not reflect the critical thinking of nurses, nor the uniqueness of the profession. Thus, conceptual models used for curricula development must: encompass the distinct nursing worldview, promote learning, and be efficient and comprehensive.

Frameworks have been proposed and tested to guide the development and implementation of inter-professional education (IPE) and collaborative practice curricula for NP and medical students. A qualitative assessment of a framework guided IPE module illustrated the benefit of improving the focus on role awareness in participating students.[10] However, this particular curriculum was limited to a two-week period and not presented as a pervasive approach to the educational programs of each discipline.

In education, an overarching philosophy can provide a road map for goal identification, teaching material development and the formulation of evaluation methods.[1] For instance, when creating a curriculum that was a result of the collaboration of three different post-secondary institutions, the SHARE (students, humor, administrative support, resources, and educational technology) model was used.[13] This model brings together resources, students and faculty, surrounding them with humor, which was viewed as a fundamental part of the process while the program was still in its early stages.[13] According to the authors, the program has been widely successful and the reliance on humor as an underlying philosophy has enabled the students and faculty to deal with problems arising in the new program.[13]

Focusing on evaluation, Kapborg & Fischbein[14] promoted the use of the Education Interaction Model. The model identifies how educational influences can interact with abilities of students and how the consequences of this interaction can be evaluated by observing changes in both students and programs. The authors argue that, while the educational interaction model is effective, it is not the only model that can be used to carry out evaluations.[14] The authors stress that the model chosen to perform an evaluation should be based upon what or who is going to be evaluated.

The standards outlined in the CNA NP framework are an essential part of organizing the education process for NPs and ensuring that NPs have acquired the necessary skills to practice in Canada as an NP. However, the framework is lacking philosophy and organization regarding NP education programs to ensure that the curriculum is preparing the NPs for the ever-changing work environment.

An Australian survey of NP education documents from relevant universities as well as interviews with NPs and academic conveners from Australia and New Zealand found that, while NP educational programs need to have strong clinical and science based learning components, student directed and flexible learning models act to ensure the capability of NPs as they strive to adapt to practice situations.[15] Capability, as an approach to the learning process, includes the flexibility to respond to the specific, self-identified learning needs of students.[15] Knowing how to learn, having high self-efficacy, applying competencies to new tasks, collaborating with others, and being creative are all signs of a capable practitioner.[16] Gardner et al.[15] emphasized the need for a program that fosters both competent and capable NPs. In a follow-up study, using the same data, Gardner et al.[17] confirmed that NPs viewed the attributes of a capable NP as imperative to practice. Thus, a framework for NP education must include both competency building elements, such as those currently found in the CNA NP framework and capability building elements which can be fostered through self-directed learning.[17]

Similarly, Schaefer[18] investigated the role of caring in nursing practice through a class for APN students in which the students reflected on their narratives of caring for patients. This qualitative study

revealed that when APN students provide care by meeting the complex needs of suffering patients, the art and science of nursing combine.[18] The emphasis on care as a pervading part of nursing practice ensures that patients receive high quality care and maintain a sense of dignity, even with poor health outcomes. A curriculum based solely on competencies fails to incorporate not only the capabilities that are important for a successful practice, but also the caring nature of nurses that must be developed. Thus, a conceptual framework that includes competencies, philosophy and organization is essential to advanced nursing curriculum formation.

Purpose

An assessment of available conceptual and/or theoretical frameworks for graduate education in nursing generally, and for nurse practitioner education specifically, is required with the ultimate goal of providing recommendations for adaptation or adoption as a unifying approach. As such, the review will aim to answer the following questions:

1. What conceptual and/or theoretical frameworks are currently available in the literature for nurse practitioner education?
2. What frameworks are available for graduate level nursing education in general?
3. How can the identified frameworks be adapted or adopted for use in current education practices?

A preliminary search of Cochrane Database of Systematic Reviews, Joanna Briggs Institute Library of systematic reviews, Medline, CINAHL, PSYCINFO and PROSPERO has been done and no systematic or scoping reviews were located on this topic.

Keywords

curriculum; education; graduate education; nurse practitioner; theoretical frameworks

Methodology

This scoping review will adopt the methodology for JBI scoping reviews as described in the 2015 JBI Reviewers' Manual.[19,20]

Inclusion criteria

Types of participants

This review will consider studies that include nurse practitioners in any specialty or the education of nurse practitioners in any specialty at the graduate or post-graduate level.

Phenomena of interest

In this review, we will consider documents that describe or evaluate frameworks, maps or conceptual structures for NP education at the graduate degree or post-graduate degree level. Literature that presents a framework for the graduate education of students in other health care disciplines at the university level will also be considered for inclusion. Frameworks for utilization in other jurisdictions (e.g. Provincial and Territorial regulatory frameworks) and metrics that assist in measuring, describing and organizing key concepts required for nurse practitioner education will be examined. Outcomes of interest for this review will include framework components in either narrative or illustrative form.

Context

This scoping review will consider studies that have been conducted in the provision of graduate level education of students in health care disciplines. Specific contextual focus will be directed to identify

frameworks for educational programming for nurse practitioner students. Frameworks for curriculum development and/or delivery in other disciplines will also be considered.

Types of studies

In this review we will consider research papers of any kind, position statements, framework presentations and policy documents from governments or professional bodies. Documents will be limited to English and French language, but will not be limited otherwise. We will consider any literature that presents a framework for Nurse Practitioners in any specialty, as well as graduate education students in health care disciplines at the university level.

Search strategy

An initial search strategy has already been developed to find both published and unpublished studies. An initial limited search of Medline and CINAHL will be undertaken followed by an analysis of the text words and subject words contained in the titles and abstracts of each of the initial articles. A second search will be conducted identifying all keywords and index terms mined from this initial set of results, as well as to identify additional databases that should be searched. Thirdly, the reference lists of all included reports and articles will be hand-searched for additional results and to confirm the sensitivity of the original search strategy. The following databases and search engines will be included: CINAHL, MEDLINE, ERIC, Embase, PsycINFO, Web of Science, Education Source and Google Scholar. No date limits will be used in the searches: each search will be performed from the beginning date of the database to the present. The search for unpublished works will be conducted in Dissertation Abstracts, Google Scholar, Embase Conference Proceedings and DART-E.

An initial list of keywords has been generated and will expanded upon prior to the search process. This list includes, but will not be limited to: "nurse practitioner education" "advanced practice nursing education" "graduate level education" "conceptual framework" "theoretical framework" "curriculum" "health care education".

Data extraction

With examination of some preliminary data detail, it is apparent that we will need to employ a tool that includes additional detail than that provided by JBI forms. As such, we are planning to use a form adapted from of the theory evaluation framework provided by Walker and Avant[7] (Appendix I) previously used by Graham and Tetroe[21] in their critical analysis of conceptual models of Knowledge Translation and the Joanna Briggs Institute Narrative, Opinion and Text Assessment and Review Instrument (JBI–NOTARI) data extraction forms (Appendix II). The data extracted will include specific details about the framework/model, model components, relevance to NP practice and evaluation.

Data mapping

Meta-analysis will not be possible due to the descriptive nature of the data extracted and the heterogeneity of included research findings. The study findings will therefore be presented in narrative form and figures and tables will be used to illustrate or summarize key findings as appropriate.

Frameworks will be examined for relevance to NP education using an NP Program Competencies Curriculum Mapping Document,[4] (mapping the program competencies with the Canadian Nurses Association NP Core Competency Framework[3]) and the Graduate Degree Level Expectations and appropriate mapping document by members of the review team that currently provide instruction within NP programs (RW, JM, CG).

Conflicts of interest

The authors have no conflicts of interest to declare.

Acknowledgements

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Appendix I: Data extraction instrument (Form adapted from Walker & Avant's Theory Analysis Procedure[7] with their permission)

Authors, Date	Origins *Who developed it? Why developed? Inductive or deductive? Evidence to support or refute?*	Meaning *Concepts or main ideas?*	Logical consistency *Logical structure of concepts and statements? Logical fallacies?*	Generalizability and parsimony *Quality of generalizability and simplicity in explanation?*	Testability *Can the theory be supported with empirical data?*	Usefulness *Is the theory practical and helpful?*

Appendix II: NOTARI data extraction tool

JBI Data Extraction for Narrative, Expert opinion & text

Reviewer _ Date _

Author _ Year _ _ _ _ _ _ _ Record Number _ _ _ _ _ _

Study Description

Type of Text:

_____

_____

Those Represented:

_____

_____

Stated Allegiance/ Position:

_____

_____

Setting

_____

_____

Geographical

_____

_____

Cultural

_____

_____

Logic of Argument

_____

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Data analysis

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Authors Conclusions

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_____

Reviewers Comments

_____

_____

Data Extraction Complete   Yes ☐   No ☐

Conclusions	Illustration from Publication (page number)	Evidence		
		Unequivocal	Credible	Unsupported

Include   Yes ☐   No ☐