Features of scholarly practice in health care professionals: A scoping review protocol

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Introduction: Health care professionals are expected to embrace and enact the scholarly practitioner role. Scholarly practitioners demonstrate a lifelong commitment to excellence in practice through continuous learning, engagement in evidence-informed decision-making, contributions to scholarship, and knowledge translation. However, the specific features and requirements associated with this role are not uniform. The absence of well-defined and delineated conceptualizations of scholarly practice and the scarcity of empirical research on how scholarly practice is operationalized contribute to a lack of a shared understanding of this complex role.

Aim: The purpose of this scoping review is to map the breadth and depth of the literature on what is known about scholarly practice in licensed health care professionals.

Methods: Arksey and O'Malley's 6-stage scoping review framework will be used to examine the breadth and depth of the literature on the definitions and conceptualizations of the scholar role in health care professionals. We will conduct a comprehensive search from inception to present in MEDLINE (Ovid), EMBASE (Ovid), and CINAHL using scholarly practitioner terms and related synonyms, including a grey literature search. Following a calibration exercise, two independent reviewers will screen retrieved papers for inclusion and extract relevant data. Included papers will: (*i*) explore, describe, or define scholarly practice, scholar or scholarly practitioner, and/or related concepts in the licensed health care professionals; (*ii*) be conceptual and/or theoretical in nature; (*iii*) use quantitative, qualitative, or mixed methodologies; and (*iv*) be published in English or French. Numeric and thematic analysis will characterize the data and address the research objectives.

Key Words: *clinician scientist; health personnel; research personnel; scholarly practice; scholarly practitioner; scholar*

INTRODUCTION

Health care professionals are expected to deliver interventions that are supported by accurate, timely, and up-to-date clinical information [1]. A health care professional's inclination and ability to interpret and integrate research evidence is key to what it means to be a scholarly practitioner. The scholarly practitioner, also referred to as "scholar," represents someone who demonstrates a lifelong commitment to excellence in practice through continuous learning, engaging in evidence-informed decision-making, and contributing to scholarship and knowledge translation [2]. Research regarding professionals who adopt a scholarly approach to practice has shown benefits for the individual clinician (e.g., validates the provider's work and their profession) [3], the organization (e.g., reduction in staff turnover, increased productivity and efficiency) [4, 5], and most importantly, patients in the health care system (e.g., lower rate of mortality and adverse events) [6].

Notwithstanding the many components and/or processes of scholarly practice (e.g., evidence-based practice) that are common to most health care professions, the requirements for health care professionals to embrace and enact their role as scholarly practitioners are inconsistently defined. For example, some health care professionals' competency frameworks (e.g., medicine, occupational therapy) describe what scholarly practice entails and list associated behaviors that reflect scholarly practice (e.g., reflecting on practice, critical appraisal, disseminating knowledge) [2, 7]. Other health professions (e.g., nursing) do not include scholarly practice as a distinct competency. Rather, they include several component parts as behaviors that are integrated within other roles (e.g., evaluating current practice in light of research findings, critiquing and disseminating evidence-based findings) [8, 9]. The absence of well-defined and delineated conceptualizations of scholarly practice [10, 11], the scarcity of empirical research on how health care professionals operationalize scholarly practice, and the variability in how scholarly practice is defined within health professions education and competency frameworks contribute to a lack of a shared understanding of scholarly practice across professions [11, 12]. This gap in understanding can hinder the advancement of knowledge on how scholarly practice develops and is enacted in practice and can deter efforts at supporting health care professionals in their development as scholarly practitioners [12]. Mapping the literature on

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scholarly practice may shed light on how scholarly practice manifests across different health care professions, thus providing a rich description of the nuances of each and guiding empirical research aimed at supporting the development of scholarly practice. The purpose of this scoping review is to map the breadth and depth of the literature on what is known about scholarly practice in health care professionals. A preliminary search of PROSPERO, MEDLINE, the Cochrane Database of Systematic Reviews and the Joanna Briggs Institute Database of Systematic Reviews and Implementation Reports was conducted and no current or underway scoping reviews or systematic reviews on scholarly practice were identified. No similar review protocol is registered in PROSPERO.

Review question(s)

The overarching question guiding this review is "What is known about scholarly practice in licensed health care professionals?" The review will explore the following three sub-questions:

1) How is scholarly practice conceptualized and defined in licensed health care professionals?
2) What are the component parts of scholarly practice in licensed health care professionals?
3) How has scholarly practice been operationalized in clinical practice among licensed health care professionals?

Inclusion criteria

Participants

This review will include papers that report on licensed health care professionals, defined as professionals who are formally recognized by a regulatory body as a person who has passed all the qualifications to practice health care in that profession, in that state, province, or country. The licensed health care professionals included in this review represent a sample of hospital-based members of the interdisciplinary team, defined as health care professionals brought together because they share links between disciplines [13]. The list of licensed health care professionals include: physicians, nurses, pharmacists, and allied health care professionals–specifically, rehabilitation professionals (Occupational Therapists (OT), Physiotherapists (PT), Registered Respiratory Therapists (RRT), and Speech Language-Pathologists (SL-P)), Registered Dietitians, Social Workers and Health Psychologists. Papers that report on a mixed population (e.g., students and licensed health care professionals) will also be included.

Concept

The proposed review will include studies that explore, describe, or define scholarly practice, scholar or scholarly practitioner, and/or related concepts in licensed health care professionals. Of interest will be papers describing how these concepts are operationalized, defined, or developed using a theoretical framework.

Context

The context for the proposed review will include studies that discuss the scholarly practitioner concepts within licensed and practicing health care professionals in any professional practice location or workplace, in any geographic location.

Types of sources

This scoping review will include quantitative, qualitative, and mixed-methods study designs. Grey literature, including competency frameworks, will be included, as these may provide definitions and components of scholarly practice specific to the profession that may be pertinent to our research questions. Theses and dissertations will also be consulted as they often contain well-defined theoretical frameworks that may be useful to orient and to discuss scholarly practice in the health professions. Additionally, dissertations may have valuable data that may not have been published in traditional peer-reviewed journals. Articles published in English or French will be included.

Exclusions

The research team initially considered three exclusion criteria: editorials, papers reporting on scholarship as a grant, and papers reporting on students/learners. After a preliminary screening of the retrieved articles and considering the iterative nature of scoping reviews, the research team identified additional exclusion criteria that narrowed the types of papers to be included in the review [14, 15]. At the publication date of this protocol, if a paper focused on more than one of the following criteria, it was excluded from the review:

- focus was on students or pre-licensure health care professionals,
- discussion of a location or program only, without mentioning licensed professionals,
- description of bibliometrics without referring to the health care professionals,
- discussion of scholarship as it relates to a grant or payment,
- description of the methodological steps when conducting research,
- focus on a surgical or medical technique,
- reporting of a media/interview-based article between researchers,
- editorials, commentaries, and letters to the Editor.

PROTOCOL METHODS

The proposed scoping review was developed using the 6-stage framework from Arksey and O'Malley [16], further refined by Levac [15]. The scoping review will be conducted in accordance with the Joanna Briggs Institute methodology for scoping reviews [17].

Search strategy

The search strategy will aim to locate both published and unpublished literature. The search strategy was developed through a series of steps. To date, the corresponding author (MZ) generated the preliminary set of search terms based on keywords derived from existing Canadian competency frameworks in medicine [18], nursing [8, 19] and rehabilitation (OT, PT, RRT, and SL-P) [7, 20–22]. These keywords were then circulated to the research team (AB, AW, AT) (as content experts) for clarification and addition of key search terms. These search terms were then integrated into the search strategy. A health sciences librarian who is a member of the research team (JB) reviewed the strategy. The project leader (MZ) then rescreened the titles and abstracts for new keywords. The final search strategy will be translated for use in each of the databases (an example of the Ovid Medline search appears in Appendix 1).

Information sources

The search will be conducted in the following databases: MEDLINE (Ovid) (1946–present), EMBASE (Ovid) (1974-present), and CINAHL (1981–present). These databases were selected to ensure that the search was comprehensive (i.e., cover a broad range of health care professionals). The reference list of included articles found in the electronic search will be hand searched for additional relevant articles. ProQuest Dissertations and Theses will be searched for grey literature. Additionally, any included papers that explicitly reference a competency framework will be included.

Study selection

Following the search, all identified records will be saved and uploaded into EndNote X9.1 (Clarivate Analytics, PA, USA) and duplicates removed. The papers will then be uploaded to a web-based review software program Covidence (Veritas Health Innovation, Melbourne, Australia). The review process will consist of two screening phases: a title and abstract review followed by a full-text review.

A calibration exercise will first be performed on a random sample of 5% of the references before the initial screening phase. Specifically, each reviewer will apply the inclusion/exclusion to a common set of titles and abstracts and then meet to discuss their decisions to obtain 90% agreement [23]. Regular meetings will be held to discuss discrepancies between the reviewers, and the calibration exercise will be repeated until 90% agreement is obtained, at which point, the remaining articles

from the search will be divided among the two reviewers. Each reviewer will independently screen 50% of titles and abstracts for inclusion against a set of inclusion criteria using a Microsoft Excel form developed by the research team for the screening process. Any articles that are deemed relevant by either reviewer will be included in the full-text review. Reasons for exclusion of full text will be recorded and reported in the final scoping review according to the Preferred Reporting Items for Systematic Reviews and Meta-analysis extension for scoping reviews (PRISMA-ScR) reporting guidelines [24]. In the second screening phase, the two reviewers will each independently assess the full-text articles and apply the inclusion/exclusion criteria. Any disagreement about eligibility at the full-text review stage will be resolved through discussion, or with a third investigator until full consensus is obtained. The results of the search will be reported in full in the final scoping review and presented in a PRISMA-ScR flow diagram [24].

Data extraction

The research team will develop a data extraction form and mount it onto Microsoft Excel. The team (as content experts) provided suggestions about study details deemed pertinent for inclusion. The draft charting form includes the following information for each paper: author(s), year of publication, profession, context (i.e., area of practice, setting, patient population), study or article location, purpose, use of theoretical framework, definition of scholarly practice, components of scholarly practice, outputs of scholarly practice, methodology, main findings, limitations, areas for future research including intervention strategies for developing scholarly practice. See Appendix 2 for the draft charting tool.

The data extraction stage will also include a calibration exercise, similar to the study selection stage [23]; each reviewer will extract the relevant data on a subset ($n \sim$ 5–10) of papers. Any disagreements that arise between the reviewers will be resolved through discussion or with a third reviewer. The form will then be iteratively modified and revised as necessary during the process of data extraction. Once a 90% agreement level is obtained, each reviewer will independently extract the data from the remaining articles. Corresponding authors of papers will be contacted in the event of missing data.

Data presentation

The analysis will consist of two phases: numerical analysis and thematic analysis. The numerical analysis aims to present the extent and nature of the papers included in the review. We are interested in the types of papers, where and when the papers were published, and how many (and which) health care professionals define and operationalize scholarly practice and in which context.

Thematic analysis will be used to describe and explore the nature of the theoretical frameworks, proposed definitions of scholarly practice, and the required components of scholarly practice. Thematic analysis will also be used to describe the main conclusions, areas of future research, and limitations. Two members of the research team will independently apply the thematic analysis procedures to identify common themes across the proposed definitions, required components for scholarly practice, and theoretical frameworks. All other members of the research team will be consulted to discuss the preliminary themes and work towards consensus. A final summary of the major findings organized under each theme will be produced following several iterations with the full research team.

The data will be presented in diagrammatic or tabular form and discussed in light of existing literature. This will provide the reader with the main conclusions, existing gaps in the literature, clarification of complex concepts, and recommendations for future research. There will not be a critical appraisal of the included papers as the primary purpose of a scoping review is not to assess the quality of the included studies but to map the breadth and depth of the literature on a given topic [15–17, 23].

CONCLUSION

The expected results of this review will serve to map the breadth and depth of the scholarly practice literature, may illuminate how it manifests across different health care professionals, and guide future empirical research aimed at supporting students' development of scholarly practice.

Ethics

Ethical approval was deemed not to be necessary as the data is publicly available literature.

Conflicts of interest

MZ and AW are members of *CJRT*'s editorial board and were not involved with any decisions about the manuscript. All other authors declare no conflict of interest.

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APPENDIX 1

Search strategy for MEDLINE

Database: Ovid MEDLINE(R) ALL <1946 to February 06, 2020>

Search	Query	Records retrieved
#1	scientist-practitioner*.tw,kf. OR physician scientist.tw,kf. OR scholarly inquir*.tw,kf. OR research-practitioner*.tw,kf. OR praca-demic*.tw,kf. OR practitioner-scholar*.mp. OR academic practi*. tw,kf. OR clinician scientist*.tw,kf. OR investigator*.ti. OR scholarship.tw,kf. OR scholarly.tw,kf. OR scholars.tw,kf. OR scholarly practition*.tw,kf. OR scholar.tw,kf. OR clinician investigator*. tw,kf. OR physician investigator*.tw,kf. OR Research Personnel/	53793
#2	exp Physicians/ OR doctor*.ti. OR physician*.ti. OR exp Nurses/ OR (nursing or nurse*).ti. OR exp Physical Therapists/ OR physical therapist*.tw,kf. OR physiotherapist*.tw,kf. OR exp Occupational Therapists/ OR Occupational Therapy/ occupational therapist*.tw,kf. OR respiratory therap*.tw,kf. OR Allied Health Personnel/ OR allied health personnel.tw,kf. OR exp Speech-Language Pathology/ OR (speech language pathologist* or speech language therapist* or speech pathologist* or speech therapist* or "speech and language pathologist*" or "speech and language therapist*").tw,kf. OR Pharmacists/ OR pharmacist*. tw,kf. OR dietician*.tw,kf. OR Nutritionists/ OR nutritionist*.tw,kf. OR Social Workers/ OR social worker*.tw,kf. OR Audiologists/ OR audiologist*.tw,kf. OR psychologist*.ti. OR health psychologist*.tw,kf. OR psychology, clinical/ or psychology, medical/	602989
#3	#1 AND 2	5047
Limited to English and French		4787

APPENDIX 2

Data extraction instrument

- Author
- Year of publication
- Geography
- Type of article (conceptual, empirical, position paper, editorial)
- Study objective
- Study design
- Methodology (Qual, Quan, Mixed methods or N/A)
- Profession(s)
- Sample Population (*n* =)
- Theoretical Framework explicitly stated (if any) yes or no
- If yes, which theoretical framework
  Q1) Is scholarly practice defined
    - If yes, what is the name used and definition
  Q2) Components involved in scholarly practice (i.e. the pieces that make-up scholarly practice)
    - If yes, what are the pieces
  Q3) Were there outputs of scholarly practice (i.e. research, teaching etc.)
    - If yes, what are the outputs
- Authors results/main conclusion
- Study limitations
- Areas for future research