

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	National programs for validating physician competence and fitness for practice: a scoping review
AUTHORS	Horsley, Tanya; Lockyer, Jocelyn; Cogo, Elise; Zeiter, Jeanie; Bursey, Ford; Campbell, Craig

VERSION 1 - REVIEW

REVIEWER	Francois Goulet Assistant Director Practice Enhancement Division College des Medecins du Quebec Quebec, Canada
REVIEW RETURNED	11-Jan-2016

GENERAL COMMENTS	<ul style="list-style-type: none">• Great idea to do a meta-analysis on different definitions (revalidation, relicensure, recertification, etc) and to regroup them under a unique definition: national physician validation system.• Great idea to describe on what theoretical framework all these systems are based on and what are their purposes;• This paper presents an original and relevant perspective on the revalidation and recertification process;• Brings up the importance of standardizing the definitions of these concepts;• It will incite all medical authorities and associations to better define their theoretical framework and the expected outcomes;• Very important paper not because of new concepts presented but for questions being raised. • Well written and with adequate references. • Strengths and limitations are well described.
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REVIEWER	Sheena Bance Ontario Institute for Studies in Education (OISE) University of Toronto Toronto, Canada
REVIEW RETURNED	07-Feb-2016

GENERAL COMMENTS	<p>This is an important and timely topic to be explored and provides a first-step for future studies. Some specific comments below:</p> <p>1. Pg 5, line 29. The sentence that states "here some nations continue to embrace the 'up-to-date model' of continuing medical education" - it would be helpful to clarify what the "up to date model" is and provide an example.</p>
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	<p>2. Pg 5, line 50-55. The rationale for using a scoping review is not clear. Why not use a narrative review? According to Arksey & O'Malley (2005), the goal is to "map rapidly the key concepts underpinning a research area and the main sources and types of evidence available, and can be undertaken as stand-alone projects in their own right, especially where an area is complex or has not been reviewed comprehensively before". The rationale for this choice of method should be made more explicit.</p> <p>Pg 6, Line 7. It would be helpful for the reader if you explain the aims of a scoping review (e.g. how is it different from a systematic review?)</p> <p>Pg 6, Line 36. Are there only national systems for physicians? If you are choosing physicians specifically, why?</p> <p>Pg 6, line 38. "they a) described a national-level system, b) were a recognized system for affirming competence and c) reported relevant data." How do you operationalize these terms? Specifically, what is a recognized system, and what is "relevant data"?</p> <p>Page 6. Overall, the selection section should be expanded and clarified. Specifically, more details on inclusion and exclusion criteria are important to clarify. E.g., did you include all types of articles? if so, this should be stated.</p> <p>Page 7, line 7. There is not enough description of the selection and extraction process. This should ideally be presented in a linear fashion, e.g., how many titles were retrieved by the initial search? What criteria was used to screen titles and abstracts? What criteria was used to screen full-text articles? Did you use a calibration phase in order for screeners to calibrate on the criteria?</p> <p>Page 7, Line 7. Please clarify what data you extracted from each full text article.</p> <p>Page 7, Line 7. Did you assess study/paper quality? If not, why not?</p> <p>Page 7, line 51. "Study design was classified using a taxonomy of designs and definitions published within the Cochrane Library". What are these? Please provide a brief description or example of this taxonomy.</p> <p>Page 8, line 29. "first question for our review was to answer what programs, theoretical models or policy structures.." This does not complement your research question/objectives as stated on page 5 lines 50-55. Theoretical models are not mentioned in your introduction so should be added in the introduction.</p> <p>Page 7, line 7-8 and Page 10, Contextual Factors section. What qualitative analysis method/strategy did you use to develop these "themes?" More explanation on how you formed these themes is needed.</p> <p>Page 12, line 31. Terminological needs a separate heading - as written it looks like it is another theme. Also, is this a goal of the study? If so, why is not mentioned in the introduction?</p> <p>Page 25, Figure. This figure is very unclear - if one adds up</p>
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	<p>MEDLINE, ERIC, Soc Abs and Reviewer Nominated articles, the total is 7658, but the total here states 7526. Are these 132 articles duplicates? If so, it should be clearly shown in the diagram (e.g. an arrowed box leading away from the 'Records for screening box'). Also, it is unclear where the number 14,640 comes from. Overall, this is a very confusing figure and should be drawn in a linear, step-by-step fashion so that the reader can clearly understand how you got to 45 articles.</p>
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VERSION 1 – AUTHOR RESPONSE

Reviewer: 1: [Reviewer Name: Francois Goulet]
 No comments to address.

Reviewer: 2 [Reviewer Name: Sheena Bance]

Comment #1: Pg 5, line 29. The sentence that states "here some nations continue to embrace the 'up-to-date model' of continuing medical education" - it would be helpful to clarify what the "up to date model" is and provide an example.

Response to Reviewer: We have revised the text to read "Where some nations continue to embrace the 'up to date' model of continuing medical education whereby physicians are required to attend educational programs and document their participation; others have made system changes that require physicians to demonstrate evidence of their continued competence and skill through audit and performance data. Traditionally, this has been a combination of both providing evidence of participation and demonstrating how participation has led to practice improvement or patient care outcomes."

Comment #2: Pg 5, line 50-55. The rationale for using a scoping review is not clear. Why not use a narrative review? According to Arksey & O'Malley (2005), the goal is to "map rapidly the key concepts underpinning a research area and the main sources and types of evidence available, and can be undertaken as stand-alone projects in their own right, especially where an area is complex or has not been reviewed comprehensively before". The rationale for this choice of method should be made more explicit.

Response to Reviewer: We have provided greater rationale for using scoping methodology. "Scoping reviews are categorized as exploratory projects intended to rapidly map the literature to identify key concepts, theories and sources of evidence. They are often undertaken when feasibility of the research is considered to be a challenge either because of presumed diversity and/or it is thought that little literature exists. In particular, it can be undertaken when an area has not been comprehensively reviewed before. Given our nascent understanding of the scope and diversity of literature and a recognition that no comprehensive review was available we undertook a scoping review to summarize information for 1) what theoretical models or policy structures have been described as informing the development and/or implementation? 2) what national CPD programs were used or developed to implement strategies/systems? and 3) what specific contextual factors have been described as catalysts or influential in developing, shaping or changing systems?"

Comment #3: Pg 6, Line 7. It would be helpful for the reader if you explain the aims of a scoping review (e.g. how is it different from a systematic review?)

Response to Reviewer: Please see the above revision that responds to this question.

Comment #4: Pg 6, Line 36. Are there only national systems for physicians? If you are choosing

physicians specifically, why?

Response to Reviewer: No there are not only national systems. Given the application of the scoping review's findings to the strategies, processes and requirements for Royal College specialists, we chose to limit the scoping review to national systems that were established to affirm the continuing competence of physicians in practice.

Comment #5: Pg 6, line 38. "they a) described a national-level system, b) were a recognized system for affirming competence and c) reported relevant data." How do you operationalize these terms? Specifically, what is a recognized system, and what is "relevant data"?

Response to Reviewer: The research team operationalized 'national-system' through a jurisdictional lens (e.g. involving or relating to a nation as a whole) either for all specialties or a specific specialty. National systems were included if their governance, structure, policies and requirements were intended to affirm or assess the continuing competence of physicians. To be considered relevant for inclusion, documents must have reported data relevant to our research questions (including descriptive information, publication and study type, rhetorical information and terminology etc.). To be considered relevant for inclusion, documents must have reported data relevant to our research questions (including descriptive information, publication and study type, rhetorical information and terminology etc.) Revision: English-language reports of any study or publication type were eligible for inclusion. Reports were included for analysis if they a) described a national-level system (jurisdictional), b) the system was designed to affirm or establish the continuing competence of physicians and c) reported data / outcomes relevant to our research questions.

Comment #6: Page 6. Overall, the selection section should be expanded and clarified. Specifically, more details on inclusion and exclusion criteria are important to clarify. E.g., did you include all types of articles? if so, this should be stated.

Response to Reviewer: We agreed with the reviewers comments and have substantively revised the section to increase clarity of the process. Revision: "A relevance assessment tool was developed iteratively by the team and tested a prior to ensure assessment consistency. The tool assessed 4 broad domains specific to 1) population of interest 2) scope or jurisdiction 3) a system for affirming competence (explicit the integration of the program, tool, or strategy within a system of Maintenance of Certification, Revalidation or Recertification) and 4) relevant information (frameworks, theoretical models or policy structure, described contextual or other factors as important to or influential in what was developed or implemented and use of evidence or data that informed or served as the basis for decision making).

All bibliographic and web-based search results were organized by a coordinator who removed duplicate records. Using reference management software the title and abstract of all records were provided to each reviewer using an assessment matrix to ensure independent, duplicate screening as applicable. Two reviewers independently reviewed and made decisions on titles and abstracts using an accelerated screening algorithm whereby a record could 'pass' level I when only one reviewer indicated it was potentially relevant; alternatively the title/abstract was excluded only when there was agreement by two reviewers (for exclusion). Reflective of evidence-informed best practices to decrease errors,[14] each assessment matched an evidence synthesis methodologist as well as content-area expert on each assessment. In cases where conflicts could not be resolved between the primary researchers, another review author was consulted (CC)."

Comment #7: Page 7, line 7. There is not enough description of the selection and extraction process. This should ideally be presented in a linear fashion, e.g., how many titles were retrieved by the initial search? What criteria was used to screen titles and abstracts? What criteria was used to screen full-text articles? Did you use a calibration phase in order for screeners to calibrate on the criteria?

Response to Reviewer: Please see the previous response which is inclusive of this information.

Comment #8: Page 7, Line 7. Please clarify what data you extracted from each full text article.

Response to Reviewer: We agreed that this was not sufficiently reported. The following revision has been made to add clarity. Revision: Data pertaining to demographic & study-level characteristics (publication year, publication type, study design, country, etc.), terminology (use of terminology or nomenclature, verbatim definitions), system characteristics (when established, why established, mandate, attributes, processes, framework/theoretical underpinning etc.) and expectations and information thought to be relevant for responding to our questions were extracted (e.g. contextual factors influencing program development or design, etc.).

Comment #9: Page 7, Line 7. Did you assess study/paper quality? If not, why not?

Response to Reviewer: No, we did not assess study quality. Quality assessment is not an expectation within scoping review methodology. It has been widely established that quality assessment is not a key component of scoping approaches.

Comment #10: Page 7, line 51. "Study design was classified using a taxonomy of designs and definitions published within the Cochrane Library". What are these? Please provide a brief description or example of this taxonomy.

Response to Reviewer: We agree with the reviewer that the word 'taxonomy' may be overstating what was used. The following small revision was made to add clarity. Please note the glossary is referenced. Revision: To ensure standardization across reviewers, study design was classified using definitions as published within the Cochrane Library Glossary of Terms.[15]

Comment #11: Page 8, line 29. "first question for our review was to answer what programs, theoretical models or policy structures.." This does not complement your research question/objectives as stated on page 5 lines 50-55. Theoretical models are not mentioned in your introduction so should be added in the introduction.

Response to Reviewer: We thank the reviewer for identifying this point of revision. We have revised accordingly. Revision: Given our nascent understanding of the scope and diversity of literature and a recognition that no comprehensive review was available we undertook a scoping review to summarize information for 1) what theoretical models or policy structures have been described as informing the development and/or implementation? 2) what national CPD programs were used or developed to implement strategies/systems? and 3) what specific contextual factors have been described as catalysts or influential in developing, shaping or changing systems?

Comment #12: Page 7, line 7-8 and Page 10, Contextual Factors section. What qualitative analysis method/strategy did you use to develop these "themes?" More explanation on how you formed these themes is needed.

Response to Reviewer: The following has been added to describe our approach. Revision: An approach akin to qualitative content analysis was used to analyze information from reports by the team. For example, definitions for each term (e.g. revalidation) were extracted verbatim and the text reviewed with an aim of generating the simplest and most likely explanation for phenomena based in inferential reasoning and the generation of themes.

Comment #13: Page 12, line 31. Terminological needs a separate heading - as written it looks like it is

another theme. Also, is this a goal of the study? If so, why is not mentioned in the introduction?

Response to Reviewer: We have revised to include this item as a separate header. This is a themed outcome that emerged from review of the literature and was pre-supposed. Only after reviewing the documents and information extracted was the extent of heterogeneity realized. This is typically for scoping review outcomes.

Comment #14: Page 25, Figure. This figure is very unclear - if one adds up MEDLINE, ERIC, Soc Abs and Reviewer Nominated articles, the total is 7658, but the total here states 7526. Are these 132 articles duplicates? If so, it should be clearly shown in the diagram (e.g. an arrowed box leading away from the 'Records for screening box'). Also, it is unclear where the number 14,640 comes from. Overall, this is a very confusing figure and should be drawn in a linear, step-by-step fashion so that the reader can clearly understand how you got to 45 articles.

Response to Reviewer: The flow diagram numbers were correct although the way we configured the diagram and associated text it made the flow difficult to interpret. We have revised and updated the figure accordingly (see attached) and revised the text within the manuscript. The numbers were not 'duplicate' at level one given the screening algorithm we adopted. Revision: Two reviewers independently reviewed and made decisions on titles and abstracts using an accelerated screening algorithm whereby a record could 'pass' level I when only one reviewer indicated it was potentially relevant; alternatively the title/abstract was excluded only when there was agreement by two reviewers (for exclusion). Further: Searches resulted in retrieval of 7,477 7526 records for review following an exercise of de-duplication by the research coordinator (Figure 1). We excluded 7,310 7,294 articles following title and abstract screening for lack of relevance. Full-text reports were obtained and reviewed by two authors (232) resulting in a total of 45 reports identified for final inclusion within our study (Figure 1).

VERSION 2 – REVIEW

REVIEWER	Sheena Bance Ontario Institute for Studies in Education (OISE) University of Toronto
REVIEW RETURNED	18-Mar-2016

GENERAL COMMENTS	I thank the authors for their responses to my comments. In my view the authors have adequately addressed all comments.
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