Reviewer's report

Title: Mapping clinical reasoning literature across the Health Professions: A scoping review

Version: 0 Date: 26 Mar 2019

Reviewer: Paul Bergl

Reviewer's report:

I appreciated the opportunity to review this excellent work by Young et al. The authors have taken an immense and nebulous topic and attempted to distill disparate definitions and conceptions of "clinical reasoning" into a mapped hierarchy of linked concepts. This work appears to build upon the author group's 2018 publication in Academic Medicine that began to explore the various ways "clinical reasoning" is defined and evaluated.

This paper employs clear methodology and provides the medical education with highly relevant results. Overall, I am beyond convinced that this manuscript should ultimately be accepted given the impact the article is likely to have. This work speaks to a wide audience of medical educators, from theorists to practical clinical-educator types, and it informs the most critical questions of health professions education, "What is clinical reasoning? How do we teach it? How do we assess it?"

I do have multiple suggestions that I feel would enhance the paper, which I will debrief by section. I will not comment on errant punctuation (such as the frequent use of colons between subject and verb), which I presume will be handled by copyediting. Instead, I will focus on the "meat" of the paper.

Title: It is not very clear what the purpose/question is based on this title. I would recommend adding the subtitle "A scoping review of clinical reasoning terminology" or something similar.

Abstract: I would prefer, "A mapping what actually constitutes clinical reasoning may be necessary…” (p4, line 15) rather than the authors' preferred approach, which is to italicize or put terms like "is" into quotation marks. I get what the authors are trying to do, but I don't like the ring of it.

Background: This is well written and provides a compelling case for this review, and it ultimately culminates in a very clear research question.
In Paragraph 2 (p6, line 44), the authors cite key authors in developing the field of clinical reasoning research. Without blowing up the next, I wonder if the authors could expand upon how these founders in this field of research conceived of the "clinical reasoning." Such an explanation would allow readers to understand a little more about the evolution and scope of key definitions.

Methods: Overall, this section is quite clear. However, the paragraph on page 11 from lines 20-52 is a bit confusing. Line 25: Were team members identifying the terms within the manuscript itself, or were they applying three of their own terms? Line 37: Please clarify how both inductive and deductive coding were occurring. Both can occur in the same study, but I am not sure what sources the author was using for the deductive coding, except her own expertise. Lines 45-49: This is a little unclear too. Were MY, LG, and DG reviewing their coding or their categorization of terms? In other words, were the authors actually coding the terms (i.e. taking similar terms and combining them into a code) and then categorizing their codes thematically? Or are the authors using the word "coding" to actually describe a categorization task of the 110 terms that were generated during abstraction. These are slightly different processes, and both very valid. However, it is just a little unclear to the reader what approach was used. Line 49: What is meant by "full team agreement" on 65 terms? Were all 3 coders/categorizers in complete agreement on the categorical assignment of these 65 terms? And what became of the terms on which the team could not agree?

Results: I thought this section was fairly clear and have no major suggestions.

Discussion: This felt a little lengthy but is overall good. Some suggestions include the following: Page 16 lines 4-14 - Perhaps differences in how "clinical reasoning" is used may actually represents differences in priorities in how these professions see their roles and/or what they prioritize in developing clinicians within their profession. Page 18, lines 42-52: The methods do not need to be rejustified here.

Figures and Appendices: Helpful and appropriate.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes
**Does the work include the necessary controls?**  
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Unable to assess

**Are the conclusions drawn adequately supported by the data shown?**  
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Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**  
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Not relevant to this manuscript

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