Reviewer’s report

Title: Training programmes to improve evidence uptake and utilisation by physiotherapists: A systematic scoping review

Version: 0 Date: 23 Oct 2017

Reviewer: Kathleen Norman

Reviewer's report:

The authors have conducted a systematic scoping review to establish the body of evidence regarding knowledge translation (KT) training programmes to improve physiotherapists' use of evidence based practice (EBP) and clinical practice guidelines (CPGs). They reviewed English-language peer-reviewed literature found through multiple databases, ultimately relying on nine (9) articles as their key sources for their results and discussion.

Although I think the study was worth doing, and probably well executed in its key searching, I have three major concerns with the manuscript as currently written, and many minor concerns as well.

My first major concern is that the methods and early parts of the results are not adequately clear. The authors spend a disproportionate amount of the methods and results sections explaining about the systematic reviews they found, from which they found four of their nine primary studies. This includes two tables (Tables 2 and 3). Their explanations of inclusion and exclusion criteria were not adequately clear - for example, if English-language was a criterion for inclusion, then non-English-language need not be an exclusion criterion. I struggled to interpret their PRISMA flow diagram in the context of the manuscript text. I could see that they had eight primary studies identified (lines 221-22), and then their data set was reduced to five primary articles (lines 237-238) in a way that was not clear to me. Overall, I recommend that the methods and early part of the results are revised to include only the key elements of how published systematic reviews were used, and instead make it really clear how they arrived at their nine primary data sources. The process of what they excluded (the supplementary files) is less important than how they conducted the process.

My second major concern is that the authors use many terms without properly defining them. In their current Table 4, it's clear that the first three columns to the right of 'Focus'' were from their EPOC source (reference 37) but it's not clear how they constructed the Knowledge Translation Elements columns. In that table, they refer to classifying strategies are passive or active, and I could not find operational definitions of those terms anywhere in the manuscript. In their current Table 5, they use many terms as column headers and I am not clear where their definitions for those terms came from. Moreover, I do not know their operational definitions for "short term" and "long term". A more minor concern about these tables is that the geographical information
(i.e., country of origin) for the primary studies is only found in Table 3 whereas it would be much more informative if presented alongside the information in the current Tables 4 and 5.

My third major concern is that the authors only intermittently maintain awareness of the purpose of a scoping review, and specifically the purpose of the one that they conducted. They have a paragraph near the beginning (lines 120-129) about their aspirations in South Africa with respect to low back pain. While I applaud their intentions for applying what they learn to that context, it isn't germane to the manuscript. Their search did not even focus on low back pain, or focus on countries with a low physiotherapist workforce in rural and remote communities. Related to this, the authors' current conclusion is about how they intend to apply their findings to their South African situation; it is not really a conclusion about their own scoping review at all. In between the above sections, but related to the problem of the framing of the manuscript, the current Discussion is filled with sentences with verbs in the present tense. For example, in lines 317 forward, there is a section about elements of training programs in which the authors draw conclusions, despite the fact that the authors state (correctly, appears on line 198) that they were not undertaking a quality appraisal of the included studies. As other examples, the verb phrases on line 339 ("can further facilitate") and on line 342 ("may be used") both indicate that the authors are concluding these approaches are worthwhile without having done a quality appraisal of the sources. On lines 287-288, the verb phrase "were related to" seems unjustified in light of not doing formal critical appraisal, let alone meta-analysis. Similarly, the passage that begins on line 304 about "the most effective training" seems to go beyond what can be concluded from a scoping review. Overall, I recommend that the Discussion and Conclusion are re-written, focused on what can properly be discussed and concluded from a scoping review. As the authors correctly state (lines 143-144), "scoping reviews generally aim to identify the volume, type and focus of current research, and gaps in current evidence."

Here are a list of minor concerns:

There are several insufficiently documented statements: line 68-68 "The literature indicates…" and then no references cited; line 81 "It is believed that…" and then no references cited.

There are some instances of missing words or awkward phrasing: e.g., line 53 "There [what?] increasing…"; line 76 CPGs as a "vehicle" is a metaphor that doesn't make much sense to me.

Line 153: what does "available in full-text format" mean? If it means the authors screened out abstracts or conference proceedings, they should state that. If it means the authors simply didn't know how to obtain some articles in full-text format, why did they not ask their university librarian to assist them?

Lines 249-250 "Whilst similar data was extracted from all studies, the different focuses were addressed by reporting the data separately." What does this mean?
Line 293: the statement that this is the 'first review that [the authors] know of' seems odd in light of how the authors found 11 SRs that had some of what they were looking for. I recommend re-framing the sentence.

Line 312-313: The statement that physiotherapists 'known' to learn differently to occupational therapists is unwarranted. It draws on only one article focusing exclusively on students in one American university over a dozen years ago. Delete it, or reframe it and add more evidence to justify it.

Line 350: the sentence that begins "The authors had assumed..." is very unclear.

Line 353: the authors state that adherence/behaviour change is an "abstract quality." In light of the number of measures of these constructs, I don't think that is a justifiable statement, although I agree that it requires time elapsed to measure it adequately.

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

No

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

No

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript

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