Reviewer's report

Title: Evidence based practice in clinical physiotherapy education: A qualitative interpretive description

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Reviewer: Karin Hannes

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Review

This paper addresses the aspect of EBP in physiotherapist education, or more particularly the use of EBP in vocational training sessions. While there is a wealth of information on using and implementing EBP, the authors take the point of view from students and their supervisors, which is interesting. I generally found the introduction general and several points raised seemed irrelevant to the study goals. The context and methods parts were generally well written. The latter contains some contradictions. The results section does not fully seem to relate to the goals of the study and the findings do not reveal any patterns, which is a missed opportunity. Given the mismatch between introduction, goals en findings that promise patterns but don’t deliver them, it is difficult to judge whether the discussion makes sense or is relevant or grounded in the data.

Major

Last paragraph introduction:

While I agree that teaching intervention can be considered a complex intervention, I don’t see how this is relevant to your research goal, which is exploring the struggle from students to apply it. I am not sure what the aim is in the introduction. Do you want to make the point that delivering an evidence-based curriculum is complex and do we need input from the stakeholders on why that is so? Do you want to gain insight in what aspects hinder or facilitate a successful application of EBP by students? You seem to suggest that students ‘struggle’. That is okay, but should we not leave a certain openness to detect what they adopted as well? Or is it the interplay between the curriculum and the application that is the focus of your study (and as such relevant in the introduction)? This whole paragraph creates the expectation that you want to receive information from those involved in the act of teaching, in order to improve or adapt the teaching act or initiate change on the level of teaching. The next sentence then actually talks about the use of evidence. Use in what? In class room or practice settings, in assignments, in learning periods during training, in practical sessions? What constitutes education here? The context paragraph suggests that you only want to focus on clinical placements. It is my impression that the introduction does not really provide a convincing case for this. It could be more focused towards the relevance of integrating EBP in vocational training environments.
The context is generally well written and understandable.

There are some lines of arguments that are inconsistent throughout the paper. The authors state that it is their aim to 'explore' beliefs, experiences and attitudes. However, further on their 'hypothesis' is that students may lack qualifications. This feels like providing the answer in advance, which is unlikely to match an explorative study. It is quantitative logic applied to qualitative work. It seldom works out.

The design, participant and data collection part are well written and contain all relevant aspects.

The fifth paragraph is subject to conceptual confusion. The term member check is used here to refer to feeding back the observer notes to the participants. I can see the relevance of member checking to check whether analytical interpretations of researchers are correct and match those of the participants. But I cannot see the relevance of feeding back notes on group dynamic aspects of a focus group. These notes tend to be descriptive rather than interpretive. At least, I suppose it is on group dynamics, since the interviews were transcribed verbatim…

The use of the term triangulation is also confusing. I suppose the authors mean method triangulation. However, previous parts seem to suggest that the interviews were done for geographical rather than methodological reasons. … This is inconsistent.

The potential disadvantage reported is only relevant if it actually happened and may be discussed. In general terms, the authors seem to suggest that the notes were taken on the group dynamic aspects, which is a broader term that covers the task. Did they take notes on non-verbal behavior as well? I don't see any discussion on how these notes have been used in the analysis. This information should be added.

Generating large categories such as the ones reported on p 10 does not match with the label ‘first-level’ coding, that generally does not refer to major categories generated from the data, but rather to open coding processes that initially stay close to the text. I find the use of this term confusing. From what I see the authors just re-used the topics addressed in their interview guide and placed all codes underneath them. I suppose this is step 2, the development of a template? This is, in fact, a very deductive way of organizing data and does not fit with the initially described inductive approach in the design section. The major categories seem to have been chosen up front, and the information from the transcripts has been fitted in here. The least that could be said is that the authors used a hybrid approach to data-analysis and a clearer rationale for this would be welcome.

It becomes even more confusing when the authors report themes in the results section (better is to speak of findings) that are somehow unrelated to the categories created. This seems to suggest that the initial categories were unhelpful from a conceptual point of view (?). When and how the authors moved
from major categories to major ‘themes’ is a bit unclear.

The results section, to my opinion, is rather flat in the sense that it highlights some ‘events’ and what people did or did not do. These are connected through citations. There is little researcher activity on the conceptual level and none of the researcher statements really goes into the believes that people have, or the attitudes they display or what they actually experienced or felt as the result of some of these events happening during training. To me, the analysis does not completely fulfill the promised goals of the study. I am still searching for something that would make me want to read this, a new insight, an interesting researcher statement that induces reflection on the current system of vocational training for the target group, a more profound comparison between beliefs, attitudes and experiences of students versus trainers and academic mentors in the result section. It might help to tabulate it and include this sort of comparative matrix in the article.

In the analysis part the authors mention that they generated themes and patterns. I can’t find any patterns in the results nor the discussion section. There is an attempt to define three themes, but there is nothing on how they actually relate to each other. This should be dealt with on the analytical level. As it stands, the article merely seems to validate findings from other qualitative studies conducted on the topic (students or non-students) without giving new insights. The role model idea is very interesting though and could be expanded on in the discussion section. The role model seems to refer to the practical expertise that is copied by students, rather than modeling EBP. This is an interesting lead. Why is that so and what opportunities does it create in the context of EBP. There is more to this than just another story about lack of time, skills, manpower and resources. These are actually just ‘distracters’ and do not touch the level of beliefs or attitudes.

I don’t feel qualified to judge the first part of the discussion. In the limitations parts the authors actually state that they focused on behavior and hoped that this would reveal important information on beliefs and attitudes. Where did this technique lead to in the end? In other words, what events and behavior show us some of their beliefs and attitudes and in what sense? I find it odd that what is portrayed as central in the aim does not fully reveal itself in the paper. This issue should be dealt with in potential revisions.

I believe there are plenty of things that could be addressed in order to improve the quality of the article and to increase its scientific value.

Minor:

First and sixed sentence of second paragraph in introduction is unclear or incorrect. Second sentence third paragraph incorrect or needs a comma or ‘and’.

Last part of the second paragraph refers to studies on barriers from various disciplines, but mainly include physiotherapists as a target group. Broaden references to include psychiatrists, nurses, medical, dentists etc. or adapt the piece accordingly. Some of the references are old. Newer studies exist from
researchers mentioned in the reference list, that have particularly focused on barriers to implementation of EBP. The barriers that are listed are universal. Some studies do include issues particularly relevant to physiotherapists that would be more attractive to readers, for example the one from Karin H et all. The last sentence from the third paragraph seems to suggest that there is an ‘obvious’ lack of evidence on how to design teaching interventions. I am not convinced that this is entirely true. There are several papers in the educational literature that describe useful initiatives that could be mentioned and might be transferable to health care curricula.

The last two sentences of the intro section basically state the same argument. What’s the content of the written assignment mentioned?

It is irrelevant to mention focus groups at the start of the method section if you mention them again in your data collection paragraph. The text could go without this introduction. The aim has been described elsewhere.

Explain condensation. It is a rather abstract term that does not reveal what has actually been done.

I don’t particularly ‘like’ the use of italic to highlight themes, but that is a matter of personal flavor.

Could a better label for attempting EBP be ‘attempts to apply/implement EBP or Efforts to work evidence-based’

One citation that speaks to us is generally enough to make a point. The others just add the same type of idea to the researchers statement and take up space that could better be used to expand on the topic or the phenomenon discussed. P 14, to me, only the last item from student B would do the trick as well.

Conceptual confusion:

P 3: Is it the teaching that should be evidence-based (didactical level?) or is it the content of the teaching process that should be evidence-based? Is it the whole curriculum that should be evidence-based or is it an integration of the five-step program in the curriculum, either as separate course models or as part of another course?

Role modeling as one of the modes used is characterized as a social-cultural learning theory, but in fact is originally behavioristic and based on Bandura’s theory (?) . The second mode is not clear to me. Is it knowledge rather than skill based and does it refer to the use of examples in class?