Author's response to reviews

Title: Development of domain-specific epistemological beliefs of physiotherapists: A longitudinal study

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Author's response to reviews:

Dear Prof. Menard,

Many thanks for helping us to improve this manuscript on its way to publication. In this letter, we address all your comments and explain our revisions.

Editor Comments:

1. Please ensure that the Abstract headings are included in the Abstract section of Editorial Manager. If the abstract is too long, please amend the Abstract so that the headings can be included. Please ensure that the Abstract in Editorial Manager is identical to the Abstract in the manuscript file.

Reply: We have ensured that the Abstract headings were included in the Abstract section of Editorial Manager.

2. Please provide a list of all the abbreviations used in the manuscript. This list should be placed just before the Declarations section. All abbreviations should still be defined in the text at first use.

Reply: We have provided a list of all the abbreviations used in the manuscript.

3. Please specify in the Availability of data and materials section which authors should be contacted for the data.

Reply: We have specified in the Availability of data and materials section that Martina Bientzle should be contacted for the data.

4. Please indicate the role of the funding body in the design of the study and collection, analysis, interpretation of data and in writing the manuscript in the Funding section.
Reply: We have indicated that none of the funding bodies has exerted any influence on the design of the study and collection, analysis, interpretation of data and on writing the manuscript.

5. Please consider the list of authors as it currently stands with reference to our guidelines regarding qualification for authorship (http://www.biomedcentral.com/submissions/editorial-policies#authorship).

Currently, the contributions of the authors do not automatically qualify them for authorship. In the section “Authors’ contributions”, please provide further clarifications on their contributions, and see our guidelines for authorship below.

Reply: We have modified the Authors’ contributions section accordingly. It now reads as follows:

“MB, UC, and JK contributed to the conception and design of this study. MB made substantial contributions to the acquisition of data and performed the statistical analysis. MB and JK were responsible for drafting the article. UC contributed to its critical revision. All authors approved the final manuscript for publication. All authors have agreed both to be personally accountable for the author's own contributions and to ensure that questions related to the accuracy or integrity of any part of the work, even ones in which the author was not personally involved, are appropriately investigated, resolved, and the resolution documented in the literature.”

6. Please provide figure titles/legends under a separate heading of 'Figure Legends' after the References. If Figure titles/legends are within the main text of the manuscript, please move them.

Figure files should contain only the image/graphic, as well as any associated keys/annotations. If titles/legends are present within the figure files, please remove them.

Figures should be provided as separate files, and each figure of a manuscript should be submitted as a single file.

Reply: We have provided the figure title and legend under a separate heading of 'Figure Legends' after the References. We have also provided the figure as a separate file.

Reviewer reports:

Reviewer 2 (Reviewer 3): PEER REVIEWER COMMENTS:

GENERAL COMMENTS:

Overall, this study addresses relevant literature and adds value to the research base. It is generally well written and well constructed.
Throughout the manuscript, the term 'medical information' is used consistently. With physiotherapy, is the term 'medical information' appropriate? A lot of clinical information is not medical in nature therefore the authors should consider using a different term especially for an international readership.

Reply: Thank you for this suggestion. We have replaced the term “medical information” with either “health-related information” or “treatment-relevant information”, depending on what fits better in the respective place in terms of content.

Line 15 page 4 - please reconsider. 'deal with medical information'. Again on line 24. "deal with".

Reply: We agree with you. We have replaced this expression with “… process health-related information …” and “…handle treatment-relevant information”.

Page 5 line 3-4 you state that physiotherapists more align with a BPS approach. The references you have given are 1994 and 2000. Furthermore, there is a plethora of literature to suggest that physiotherapy practice is more aligned with a BM approach. This needs to be considered in your argument and included.

Reply: Thank you for this suggestion. We have we have revised the section accordingly (page 5):

“Health professionals’ personal therapeutic health concepts influence how they communicate with patients [22] and how they handle treatment-relevant information [23,24]. As physiotherapists aim to promote patients’ participation and activity in their daily life, the bps concept is supposed to be more prevalent among physiotherapists than the bm concept [25,26]. However, adopting this perspective is challenging for many physiotherapists [27], even though there is evidence that a bps approach can be more effective in treating patients than a bm approach [28]. It is conceivable that the development of therapeutic health concepts could be part of the professionalization process of heath personnel. So far, however, not much is known about health professionals’ temporal development of bm and bps concepts.”

Page 5 line 9 "deal with". Please reconsider better use of English language. "Deal with" is getting repetitive and doesn't convey the message well.

Reply: See above.

Limitations need to be further developed and outlined. Consider the single university site and country for example.

Reply: We have taken up this suggestion. We have added the following aspects to the discussion section (page 11):
“The generalizability of the results might be reduced by the fact that all of the participating students were recruited from the same school of physiotherapy, whose educational approach was mainly influenced by a bps perspective. Generalizability is also limited because the sample consisted exclusively of physiotherapists trained in Germany; physiotherapy training in Germany differs from training in other countries in that most German physiotherapists attend vocational schools instead of universities.”

Page 11 line 19 "deal with". Please consider alternatives.

Reply: Done.

Conclusion - there are implications outlined in the conclusion (line 1 page 12). Please consider further developing this within the discussion section. Consider moving this and outlining as an implication.

Reply: Thank you for this recommendation. We have further developed this section and moved it to the new “Practical implications” section (page 12):

“[…]In order to foster the development of EBs during the education process, it might be an option to confront students with close-to-reality learning settings, using for example problem-based learning methods [35], which can facilitate the professionalization process [36]. Another approach could be to develop interprofessional learning settings [37], such as interprofessional videos [38] or interprofessional online learning platforms [39,40].”

We have also revised the “Conclusion” section accordingly (page 12):

“EBs are highly relevant for learning, education, and information processing. Physiotherapy-related and medicine-related EBs developed similarly in both domains. The development of EBs appears to be a continuing development throughout one’s working life. Putting students into realistic learning scenarios already during their physiotherapy training, could be a promising strategy to foster the development of EBs.”

We hope that we have been able to revise the paper in accordance with what you had in mind and that you agree with us that the revisions have improved the quality of the final paper.

Sincerely,

The authors