Reviewer’s report

Title: Implementation of a behavioural medicine approach in physiotherapy: a process evaluation of facilitation methods

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Reviewer: Fabiana Lorencatto

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IMPS-D-19-00241

Title: Implementation of a behavioural medicine approach in physiotherapy: a process evaluation of facilitation methods.

Reviewer report:

Thank you for the opportunity to review this manuscript, which reports the results of a process evaluation investigating how physiotherapists engaged with an intervention to improve their implementation of a behavioural medicine approach in primary care physiotherapy, and the mechanisms through which the intervention led to changes in clinical practice.

Although I think this manuscript has potential to be of interest to readers of Implementation Science, I found the manuscript at times challenging to follow, and that the manuscript could benefit from further clarification and further detail throughout. This would help better communicate the methodological approach taken and facilitate interpretation of findings. Particular comments, queries and suggestions by section of the manuscript are provided below.

Abstract

1. Background: It would be helpful to briefly explain in the background what a 'behavioural medicine' approach involves and/or what the implementation intervention involved. This was not immediately clear and it is important that a reader understands a) what the intervention to be implemented in clinical practice is, and b) what strategies are being used to improve its implementation (i.e. the implementation intervention). This is needed to facilitate interpretation of the results and methods.

2. Methods: Fifteen physiotherapists participated in the process evaluation- how many participated in the trial? To help clarify what % of the overall sample took part in the process evaluation? (This point also applies to the results).
3. Methods: At what time point were the data collected? Relative to intervention delivery and outcome evaluation in the quasi-experimental trial?

4. Methods: Semi-structured interviews - what question were these trying to answer? And were these based on any theories or frameworks of implementation and/or behaviour change?

5. Results: It is unclear which findings reported in the results come from which data sources (i.e. self-report, documentary analyses, interviews). Furthermore, it would be helpful to add supporting statistics and figures for data from quantitative sources (e.g. 'physiotherapists participated most frequently in the following implementation methods:....' But no frequency data is presented alongside this?). There is also reference to the mechanisms of impact in the first line of the conclusions but it is unclear in the abstract which data sources/findings the authors consider to represent the mechanisms of impact.

6. Contributions to the literature (p.3). This section repeats the content of the results and conclusion of the abstract. Instead, it should present new content. Ideally this would be a good opportunity for the authors to explain how the methods and findings from this study address gaps in the broader physiotherapy and implementation science literature, and may of interest/relevance beyond the present study context.

Background

7. As per suggestion in abstract, a 'behavioural medicine approach' (i.e. the intervention to be implemented in practice) needs to be better explained - what is it that physiotherapists are expected to implement with patients in practice, and what is the evidence of its effectiveness. Although the authors allude to an implementation gap in lines 7-15 on p. 4, this could be further elaborated. Is it that this approach is not implemented at all? Or there is inconsistency/variability in practice? Supporting evidence/statistics to help quantify the implementation gap (if available) would also be helpful.

8. Line 18 p. 4: Please define/clarify what is meant by 'facilitation' (i.e. the implementation strategy/intervention?).

9. Line 25 p. 4: 'study showed a large effect size regarding immediate changes in physiotherapy' - can you add statistics to clarify the size of the effect, and also define the time period (i.e. immediate).

10. The background section moves quite quickly to discussing the present study and its aim. Prior to doing so it would be helpful to contextualise the present study in the broader implementation and physiotherapy literature, to help argue the need for the current study. There have been process evaluations of the implementation of behavioural interventions in the physiotherapy context, specifically focusing on fidelity of delivery, but these do not appear to have been cited or discussed in the introduction to this study (and the discussion also):


11. P. 4 line 56: Please explain the main tenants/components of the 'Implementation of Change Model' and how it informed the present study process evaluation. This is expanded upon further in methods, but if introducing this model early in the manuscript in the Background, then perhaps worth explaining here instead?

12. P. 5 lines 3-22. The theory-based intervention development is a strength of the implementation intervention design process. However, this paragraph appears to explain Social Cognitive Theory, but not precisely how the theory-based assumptions were addressed in the implementation intervention.

13. P. 5 lines 26-40: This repeats content presented in earlier paragraphs on p.4 and could potentially be deleted to make space for adding content to expand on suggestions above.

14. Aims (P. 5 lines 37-40): The author present the aims as 'explore the implementation process of a behavioural medicine approach in primary care physiotherapy'- This is quite vague/general. Could the aims be phrased more precisely in terms of what process evaluation questions are being explored? Is it the extent to which the intervention is delivered as intended/per protocol (fidelity)? Is it engagement with the different components of the implementation intervention (dose and reach)? Barriers/enablers to implementing the intervention? Mechanisms of action? The authors reference the MRC process evaluation guidance on p. 4- perhaps describe with components of this process evaluation framework this study aims to investigate? This point also applies to the way the aims are described in the abstract.
Methods

15. Please see suggestions for methods clarification in abstract- these apply to main manuscript text also. (e.g. 15 participants took part in the process evaluation- out of how many in the trial? How many clinics took part? P. 6 lines 23-26).

16. P. 7 lines 17-39: This could potentially be moved to introduction to address concerns over lack of description of key terms (i.e. behavioural medicine approach)

17. P. 8 lines 42-49: 'The selection of implementation methods was discussed in the reference group which influenced the content and structure of the implementation intervention resulting in the following facilitation methods offered by the facilitators to support the physiotherapists: ....' Does this mean that physiotherapists chose which strategies they wanted to receive? As such there were potentially different combinations of implementation intervention packages that varied across physiotherapists? This arguably has implications for interpreting the results- which are currently presented across the sample as a whole/ for a single intervention. For example, Table 1 presents the amount of time spent with each type of facilitation methods, but is it fair to compare these equally if not everyone chose/received these methods? Again Table 2- the ranking of perceived value- if some physiotherapists did not chose/receive that facilitation method then they cannot rate its perceived value? So the denominator should change for each method depending on how many chose it?

18. P. 9- Data collection: It would be helpful here to clarify which metrics were used to measure time allocation (line 32). Table 1 is meant to present this data but presents a range of different metrics (time/hours, but also number of visits, number of participants?). Also Table.1 refers to 'Dose and Reach' and these can be conceptualised in measured in a number of ways- but these are not defined in data collection in methods, nor are the metrics used to assess these clear.

19. P. 9 line 39-42 'physiotherapists were asked to rank the five most valued facilitated methods from one to five, with five being the most valuable' - I was unclear about this- if the aim is to ask participants to rank the participation methods in terms of their value, then how were 'the five most valued methods' referred to in the first half of this sentence identified?

20. P. 9 lines 45-47: 'Interviews were conducted four times during the implementation period and once after' - please clarify how many interviews in total? Was it 5 time points x 15 physiotherapists, n= 75 interviews in total? Was the topic guide structured and analysis around any theories or frameworks (i.e. Implementation Process Model, Social Cognitive Theory?)

21. P. 10 lines 18-24: It is unclear how the BCT taxonomy was used for the analysis- could the authors please clarify? Did they code participant responses deductively according to the BCT they were discussing? Then identified themes related to each BCT inductively? Was the topic guide structured around the BCTs in the intervention?

Results

22. P. 10 line 54 'Dose and Reach'- see earlier comment about defining these.
23. P. 11 lines 1-24: I am unclear on where the data for these findings around goals set a) came from and b) are reported/summarised (i.e. which Table?).

24. P.11 line 52-54: Include a brief comment/summary narratively as to which methods rated highest/lowest.

25. P. 12 -18: The interview findings are of particular interest, and the quotes are very helpful. Could these be added to Table 3, to ensure there are quotes presented for each theme/heading (some currently do not have supporting quotes). Also, given Table 3 and the in-text headings are structured around BCT cluster headings, it would be helpful in the methods to explain that taxonomy v1 has 93 BCTs grouped into 16 clusters, representing the broad ways through which these BCTs may work to change behaviour.

Discussion

26. P. 18 line 58- the discussion starts with a comment about initiation vs maintenance of clinical behaviour change; yet (I may have missed it), but the results and analysis are not framed in terms of initiation vs maintenance. Either structure results around this, or start the discussion with a headline summary/statement that is more clearly linked to the results?

27. P. 24- characteristics of the sample. Would be good to reflect here on the self-selecting nature and bias of the sample? Arguably they are more engaged with the intervention than those that declined to participate?

28. My overall suggestion for the discussion is that it is very focused on the present study context and interpretation of findings. Whilst this is important, it would be good to contextualise the current findings in the broader physiotherapy and implementation literature by discussing what gaps in knowledge this study contributes, why the methods and findings may be of broader interest etc. How do the current study findings align with those of process evaluations looking at the implementation of other physiotherapist delivered behavioural interventions (see earlier papers). It would also be of interest to know what the research team think would be the implications of the present process evaluation findings for refining the existing intervention (i.e. facilitation methods) to improve dose/reach/ and maintenance?

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Please indicate the quality of language in the manuscript:
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