Author's response to reviews

Title: Building theories of KT interventions: Use the entire menu of constructs

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Author's response to reviews: see over
Dear Editor:

Thank you for these additional comments. Below we address the reviewer’s comments in detail. In addition, we have reduced the length of the document down to ~5900 words.

Reviewer comments

I previously commented that little was said about how the Menu of Constructs (MoC) approach might be applied. This remains a concern. The authors state that the MoC approach ‘allows for inclusion of only those constructs that seem relevant to the new context’ (p7). This is rather vague: what and who determines the relevance of a construct to a particular context? What, more broadly, determines selection of constructs from the menu? On p11, the authors imply that some constructs from the menu (e.g. “transfer appropriate processing”) can legitimately be ignored where intervention designers find the construct too ‘complex’. If a construct is relevant, it seems unwise not to apply it because of its complexity.

We have included a short discussion of this on page 25 by explicitly indicating that we think the Theoretical Domains Interviewing techniques that have previously been reported can be used to apply the Menu of Constructs approach in a productive manner. While the best method of determining the applicability/relevance of newly proposed constructs has yet to be established, we propose an outline of how the MoC approach might be applied.

As well, our comment about transfer appropriate processing was not intended to imply that complex constructs should be ignored, but simply that simple constructs was one of the hallmarks of the TPB. We have made small wording changes on page 11 to clarify this.

The Behaviour Change Wheel (BCW; Michie, van Stralen & West, 2011) perspective argues that interventions should be designed using a bottom-up approach, based on a prior analysis of the behavioural problem at hand. The aim of this analysis is to identify whether the problem pertains to gaps in one or more of the three fundamental drivers of human behaviour (capability, opportunity, motivation). Similarly, as the authors acknowledge in this paper, application of the Theory Domains Framework begins with a similar contextualised analysis of the focal problem (using Theory Domains Interviewing), and identifies relevant concepts based on such analyses. Perhaps the application of the MoC approach should also depend on such an analysis? The authors note that the ‘flexibility inherent in the menu of constructs approach ... may sometimes be more of a hindrance than a help’ (p27). Perhaps by explicitly recommending analysis of a behaviour in situ prior to selecting constructs, flexibility could be reduced to a more manageable and helpful level?

This is an excellent point, one that we sought to address in the first draft, but which was taken out of the second. Because a detailed analysis of how the ‘top-down’ approach of MoC and a ‘bottom-up’ approach of the sort implied by the Behaviour Change Wheel has not been worked out in detail and would add substantially to the length of the paper, we have opted simply to point out that there is nothing about the MoC approach that precludes bottom-up analysis as well, and to cite the Michie work. (P 24)

The paper would benefit from a definition of ‘theory’ (currently on p6) and ‘construct’ at or near the outset. An explicit definition of a ‘construct’ is needed to clarify the distinction between implied ‘non-constructs’ (‘group size’ and ‘number of interventions’ are ‘superficial aspects’ rather than ‘constructs’; p9) and constructs (e.g. frequency of feedback, specificity of feedback; p13). This would clarify which constructs are eligible for inclusion in the ‘menu’, or whether there are no eligibility criteria for the ‘menu’.
We don’t feel it would be helpful to draw attention to a distinction between factors that are theory-related (constructs) or non-theory-related, as there is always the possibility that some factor we consider unrelated to theory is an important construct in a theory with which we are not yet familiar. We have re-worded ‘superficial’ to ‘descriptive’ to indicate that to our knowledge, these factors were chosen based on descriptive rather than theoretical considerations P 9. Further, we have moved the chosen definition of both theory to an earlier point in the manuscript and added a comparable definition of construct.

Similarly, the paper would benefit from a statement of the role(s) of constructs in knowledge transfer interventions. Again, this might be outside of the remit of this paper (in which case the authors should make this clear). Without this however, the implication at present is that constructs ‘advance ... understanding [of] KT interventions’ (p14) by improving statistical prediction of a behaviour (p12), and generating ideas for ‘future research and development efforts’ (p15). This is a rather narrow conceptualisation of how constructs may be used in intervention development. The authors might usefully contextualise the MoC approach by referring to Michie and Prestwich’s (2010) ‘theory-basedness’ coding frame, which offers an exhaustive account of the ways in which theories and constructs can be applied to the design, evaluation and reporting of interventions.

The coding scheme developed by Michie and Prestwich is intended to be a way of describing the various ways implementation strategies can be informed by or linked to theories. We feel that it is less well suited to describing the much broader range of causal mechanisms (i.e. those mechanisms describing how/when particular implementation strategies will work) that individual constructs using the MoC approach might embody. We have, however, cited the Michie and Prestwich scheme in our discussion of the lessons learned around how theory can inform implementation (P 5).

Title: Spell out ‘KT’.
Done.

Clarify sentence on p7: ‘...than the entire theory of situationism that surrounds that construct within the realm of social psychology’. (What construct? What is the ‘theory of situationism’?)

We have clarified this sentence, and added some detail on the theory of situationism and how it applies to the argument presented in this paper.

I disagree that previous meta-analyses have focused on ‘superficial aspects’ of A&F (p9), because it is feasible that the delivery-based concepts mentioned here may, in some contexts, determine A&F effectiveness. It is fairer to say that such aspects have not been coherently organised or conceptualised, than to imply that they are necessarily unimportant. I would recommend a change of wording here.

We have made wording changes here (P9).

Similarly, on pp9-10, the authors refer to Hysong and Gardner’s reviews: ‘these reviews show immense variability ... Without a theory about how A&F should work, it is difficult or impossible to organize this variability...’. Yet, Hysong and Gardner both offered theories about how A&F should work. Again, a change of wording is needed here.

Agreed; we have deleted this sentence.
‘Below we present some examples of theory-derived constructs...’. This sentence might be clarified by adding something to state that the following section is offered primarily to elucidate the MoC approach (rather than necessarily to build a theory of A&F).

We have made this clarification (P14).

We will be happy to consider any further changes you suggest.

Sincerely,

Jamie C. Brehaut, PhD