Author’s response to reviews

Title: Re-energising the way we manage change in healthcare: The case for Soft Systems Methodology and its application to evidence-based practice

Authors:

Hanna Augustsson (hanna.augustsson@mq.edu.au)
Kate Churruca (kate.churruca@mq.edu.au)
Jeffrey Braithwaite (jeffrey.braithwaite@mq.edu.au)

Version: 1 Date: 27 Jun 2019

Author’s response to reviews:

We thank the reviewers and the editor for the constructive and helpful comments on our manuscript. We have addressed the comments in the revised manuscript and in the response to reviewer and editor comments below. All changes in the manuscript are indicated using "Track changes".

ID: BHSR-D-18-02185

Re-energising the way we manage change in healthcare: The case for Soft Systems Methodology and its application to evidence-based practice

Reviewer/editor

Response

Roland Bal (Reviewer 1)

This is an interesting paper that fits in a search for new 'models' now that the old version of EBM—with the assumption of linear relations between 'evidence' and 'practice'—is no longer tenable. Soft systems methodology is an interesting part of this search and the authors do a good job in introducing this to a health services research public. Given my general positive take on the paper I do have some issues that I think the authors should take into account and work on for a new version.

Response: Thank you for the positive words. We have addressed all comments below.
First, while I understand the general crust of the paper, the opening and ending of it need work. As for the opening, it is weird to read that authors speaking from a complex adaptive system (CAS) background point at the problematique that evidence is not implemented as should in healthcare practices. Surely we need more conceptually developed language to talk about this. Moreover, to say that evidence is not implemented is a very shortsighted framing of a specific branch of implementation scholars and there are really different ways to assess what is going on in practices—and in healthcare research for that matter (see e.g. Bal 2017, Jones 2018).

Response: Thank you for pointing this out. We agree that this opening may seem to take a “linear” perspective to implementation and change which was not our intention. We have now changed this in the abstract, the first line and on p. 4 line 10. We have tried to adapt the language often used in relation to SSM to the language more often used in improvement science and implementation science to make it more accessible for researchers and practitioners in these fields. Our hope is that with the changes made the language is now a better fit to complexity science as well as improvement/implementation science.

We have also added a sentence about our choice of example to illustrate the SSM process on p. 4 line 60, p. 5, line 1 to clarify that this is a complex issue largely influenced by contextual factors.

Similarly, in the limitations, have read the CAS type of argumentation, I am not sure if anyone would expect the authors to come up with 'direct guidance' on how to 'implement' this. Implementations, as we have come to understand, is beside the point. I would have expected the authors here to have reflected on the lack of empirical studies that they take on board or the theoretical work that still needs to be done, not on 'implementation'.

Response: We agree that it is not about coming up with direct guidance on how to implement changes and we have changed the wording p. 16, line 9-10. However, we do want to emphasize that SSM provide little guidance for how to “take action to improve” (activity 4) other than making improvements in an iterative learning cycle.

We have now added a discussion about the lack of empirical studies and the implications of this on p. 16, line 16-21.

As for the theoretical work, I especially miss a reflection on the epistemological position of the authors/the model and on a reflection on its underlying political philosophy. As for epistemics, the authors on the one hand seem to endorse a constructivist position, but then at times also claim there is a reality 'out there' and actors take 'perspectives' on that reality. I would expect the authors to be more consistent in their position here and if they want to take on a 'perspectivist' take, then I would want an argument how they can apparently get access to an unconditioned reality.

Response: Thank you for pointing this out. We have used the language of SSM when talking about the “real world” or “reality”. In SSM the real world is defined as “the unfolding and interacting flux of events and ideas experienced as everyday life”. SSM distinguishes between
the real world and the system thinking world in order to clarify the distinction between these when going through the SSM learning cycle. We have clarified what we mean with real world at p.5 line 58-61, p.6, line 1-2 as well as used quotation marks when talking about the ‘real world’.

As for political philosophy, I would expect the authors to conceptualize power differences between actors and how to deal with this in the model—e.g. difference between healthcare professionals, patients, but also outside actors like regulators. How do these come together? Underlying the model seems to be some sort of Habermassian notion that we need 'Herrschaftsfrei Diskussion' but how do the authors see that and is that a realistic option? If not, what other ways of conceptualizing—and dealing with—power differences do the authors think of?

Response: We have added a brief discussion about the power issues on p. 7, line 2-24.

Also, I miss a crucial first step in the SSM approach the authors are describing and that is how actors come to realize there is a 'problem' in the first place—and apparently share a problem definition. A lot of work in the governance literature would point at the lack of such common problem definitions, even for such simple things as adverse events, which are often framed differently by different actors (see e.g. Behr et al. 2015). Getting to shared understandings of problems is often seen as a crucial first step in getting to 'improvement' and should be part of the approach. Getting there is also no simple thing as actors often have different problem definitions. The collaborative governance model of Ansell & Gash for example might be a good starting point here (Ansell and Gash 2008) and there has been some empirical work on how shared problem definitions can be reached in healthcare settings (see e.g. Maaijen et al. 2018). Such a shared problem definition would also be needed to see if there is indeed 'improvement', one of the crucial further steps in the model.

Response: Thank you for this comment. One important aspect of SSM is that it acknowledges that individuals may not perceive a problem situation in the same way, and some may not even perceive it to be a problem. The first stage in the model entails finding out about a situation from different perspectives to better understand the situation. This helps stakeholders to see the situation from other stakeholders’ perspectives and provide a starting point for debating the situation which can result in a shared problem definition. We have clarified this under “activity 1” on p. 6-7.

As such, SSM helps to define the problem and may also help to identify a problem. A SSM process starts with at least one actor perceiving unease about a situation or that things could be improved (now added on p. 6 line 42-54), as such we have chosen to start from there. We agree that it is an important aspect to consider how the actors came to realize that there was a problem in the first place, however, we consider it to be outside the scope of the manuscript.

I would also like to have a bit more argumentation why the authors find it 'puzzling' that SSM has not been widely adopted in healthcare—as well as a further discussion of the work that
apparently has been done (page 9, line 50 ff). My guess would also be that there are other models that try to deal with similar problems, an example being Normalization Process Theory (May 2013). Could the authors discuss the SSM approach also in relation to such other approaches and what SSM adds to these? For example, the NPT notion of 'reflexive monitoring' would perfectly fit the 'continuous adaptations and learning' part of the SSM approach, but NPT also takes on board the need for actor mobilization (e.g. in defining problems).

Response: We agree that SSM is one of numerous methods out there and this together with the fact that it is not specifically developed for or “advertised” to be a change approach for healthcare settings is a probable reason for it not being extensively used in healthcare. We have deleted the sentence saying that it is a puzzle as well as added a brief discussion about other types of change management models and discussed them in relation to SSM p. 15.

Monica Nyström (Reviewer 2)

Thank you for giving me an opportunity to read your manuscript! I have no immediate comments on this input into the debate on how to achieve changes in health care practices. It is an interesting and very important message on how to approach development, learning and change in relation to evidence-based knowledge and the complexity of both organisational systems and implementations and change processes within the healthcare system. The debate and message in this manuscript is in line with new trends of collaborative and partnership research and integrated knowledge translation (both of which you might want to refer to a bit more).

Response: Thank you for the positive words and for the suggestions of areas to consider and refer to in relation to our work. We have now referred to collaborative and partnership research and integrated knowledge translation on p. 13, line 30. as well as in the limitations section on p. 16, line 35-43.

One challenge is applying Soft Systems methodology lies in the understanding of what might be needed in terms of competence, investment, and time to work with these processes in organisations that demands "quick fixes" and changes that can be seen in a short-term perspective. For researchers, applying action research techniques in their projects it is demanding to be capable of both acting as consultant or facilitator of development and as a researcher adhering to the demands of the scientific society. Long term approaches, capacity and capability building and funding are some of the many issues that needs to be addressed. On the other hand adaptation of an intervention to the local situation and context and the involvement of important stakeholders and other actors is important in order to achieve real change and learning

Response: We agree that this is a challenge when applying SSM and have added a reasoning about this in the “Limitations” p. 16, lines 26-43.
Reviewer 2 (Reviewer 3): PEER REVIEWER ASSESSMENTS:

OBJECTIVE - Full research articles: is there a clear objective that addresses a testable research question(s) (brief or other article types: is there a clear objective)?

No - there are minor issues

Response: We have clarified the aim and moved it to the introduction p.4, line 55-60, p. 5, line 1-7 as well as added it to the abstract.

DESIGN - Is the current approach (including controls and analysis protocols) appropriate for the objective?

N/A - no methodology

EXECUTION - Are the experiments and analyses performed with technical rigor to allow confidence in the results?

N/A - no experiments or analyses

STATISTICS - Is the use of statistics in the manuscript appropriate?

N/A - there are no statistics in this study

INTERPRETATION - Is the current interpretation/discussion of the results reasonable and not overstated?

No - there are major issues

Response: We have added a discussion about SSM in relation to other change management and implementation approaches, p. 15. We have also highlighted the limitations of SSM and the empirical literature on SSM on p. 16 to make the manuscript more balanced.

OVERALL MANUSCRIPT POTENTIAL - Is the current version of this work technically sound? If not, can revisions be made to make the work technically sound?

Probably - with minor revisions

PEER REVIEWER COMMENTS:
GENERAL COMMENTS: This paper describes and proposes exploration of the Soft Systems Methodology (SSM) for managing change in healthcare, such as getting evidence into practice. I don't think anyone would argue that implementation in healthcare is simple and as such, efforts to achieve it need to be guided by models and methods that recognise and deal with the complexity of the situation. While an interesting approach, the paper would be improved if it presented the information in a more balanced manner, and provided further details in support of its application.

Response: We have now presented the information in a more balanced manner including added information about the limitations of SSM and the empirical literature on SSM in the limitation section on p. 16.

REQUESTED REVISIONS:

Given that one of the arguments of the paper is that this approach has been rarely applied to healthcare, it would be good to see further details of the 21 empirical studies of this approach that were mentioned as being found in PubMed. While a few details are provided, further information (including any measure of 'effect' or results of using the approach, any limitations of or problems identified in its use, etc) is needed. Towards the end of the paper (pg 13) the authors state that one of the aims of this paper was "to provide an overview of how SSM has been applied in healthcare." As this is a stated aim of the paper, providing details of the existing 21 studies becomes an even more crucial component of this paper. Suggest also stating this aim earlier in the paper, including in the abstract.

Response: We have added some more information about the 21 studies, including highlighted limitations such as lack of measures of implementation and results p. 11-12.

We agree that the aim implies more focus on the 21 papers than was included in the manuscript. We have modified the aim slightly to clarify that it is not a review of the papers but that we will present some examples of how SSM has been used. We are currently working on a review of the application of SSM in healthcare which will include literature searches in several data bases. Augustsson, H. Churrucu, K. Braithwaite, J. Mapping the use of soft systems methodology for change management in healthcare: a scoping review protocol. BMJ Open. http://dx.doi.org/10.1136/bmjopen-2018-026028.

We have added the aim to the abstract and in the introduction p.4, line 55-60, p. 5, line 1-7.

Elaboration of the claim that "it has been supported as a strong method for overcoming...." (pg 9, line 44) is also needed. Similarly, consider improving the balance of view about SSM that this paper provides as it only addresses the case for it.

Response: We have deleted this sentence and we have presented the information in a more balanced way throughout the manuscript.
Acknowledgement of, and brief discussion about, the other implementation models/frameworks/approaches that recognise the complexity of implementation and the need to adopt a systems perspective would also enhance this paper.

Response: We have now added a brief discussion about SSM in relation to other change management and implementation approaches p.15.