

Author's response to reviews

Title: Mapping New Theoretical and Methodological Terrain for Knowledge Translation: Contributions from Critical Realism and the Arts

Authors:

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Author's response to reviews: see over

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Implementation Science
Associate Editor
Robbie Foy

Re: Manuscript ID #2038679089192076

Dear Dr. Foy:

Enclosed please find the revised manuscript that we are submitting for further consideration for publication. We wish to thank both reviewers for their thoughtful comments and suggestions for revision. We first indicate our response to the reviewers' comments followed by our response to your own suggestions for revision.

Referee #1

1. The reviewer suggests that we “adopt a narrower frame of reference... concentrated on providing a coherent rationale and justification for [the] CRARUM framework” rather than “the ambitious target of mapping a new theoretical ... terrain”, on the grounds that “the type of criteria that [he] consider[s] to be essential for appraising the value of a theoretical development” were not explicitly covered in our manuscript. We wish to emphasize that critical realism is already well developed and has been deployed extensively in many areas, including several applications in the health sciences. Our desire, in this paper, is to argue for fuller attention to it, and use of critical realism for implementation research. Thus, what is new about our approach is not its theoretical terrain in the sense of developing a new theoretical apparatus, but rather it is the deployment of critical realism in the knowledge translation (KT) field, particularly in combination with arts-based methodologies. It goes beyond the scope of our manuscript to mount a full defense of critical realism, which would repeat the efforts of others. The reviewer’s reference to empirical adequacy of theoretical developments did prompt us to add a brief paragraph on how critical realism has been used and has informed various fields of research (see page #8).
2. The reviewer’s second concern relates to the way in which we have employed critical realism as a logic of justification. The reviewer refers to our statement “critical realism can assist researchers in effectively aligning interventions with the social environments in which change efforts are undertaken” indicating that this implies a direct link between the adoption of a critical realist perspective and the choice of a particular method. It was not our intention to imply deployment of critical realism as a method(ology); we have adjusted the wording in the text (see page #17) to reduce the likelihood of other readers being misled on this point.

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Referee #2

1. The reviewer indicates that an assessment of existing models is a key component missing from our manuscript and that such an assessment is necessary to rationalize both why another KT model is necessary, and also why the OMRU was chosen as the model to adapt. We have therefore provided a review of existing KT models, and have identified their limitations (see pages #3-5) in order to provide a stronger rationale for CRARUM. In reflecting on our rationale for choosing OMRU to adapt, we considered the reviewer's comment that "the decision to clothe the entire paper on a refurbishing of the OMRU model is puzzling". The reviewer's concern is that such emphasis on OMRU draws the focus away from the central tenets of our argument. We are grateful to the reviewer for her recommendation that OMRU be used for illustrative purposes only regarding how critical realism and the arts can more broadly strengthen KT models. This shifts the emphasis of our argument from the need to refurbish OMRU to how critical realism and the arts can remedy the limitations of KT models writ large as identified in our review (see page #5). We do retain the name CRARUM to distinguish our illustrated model from the original OMRU.
2. The reviewer suggests that our manuscript is somewhat underdeveloped with respect to the literature presented on context. We agree that "some comment on existing conceptualizations and their shortfalls vis-à-vis a critical realist perspective" would enhance the text and we have done so (see pages #6-8). The reviewer notes that the CRARUM model offers little guidance with respect to what in context influences knowledge transfer. We have provided greater clarity regarding the insights that critical realism can generate regarding what in context can influence the design, implementation and evaluation of interventions (see pages #10, 12, 16-18).
3. The reviewer notes that our redefinition of context that emphasizes the selective activation of causal powers that may result in different outcomes depending on the interplay amongst generative causal mechanisms is not reflected in our figure of CRARUM. We also maintain that "interventions intersect powerfully with other dynamics...in ways that, by virtue of the underlying causal powers at play, have the ability to either enhance or undermine change initiatives". The reviewer indicates that this is a powerful point but one that is similarly not reflected in the figure of the CRARUM model. We have thus revised the figure of the model (see Figure 2) by adding bidirectional arrows to capture the dynamic interplay amongst the various aspects of context; we have added generative causal mechanisms to illustrate that causal powers are implicated in every dimension of context; and we have moved the 'adoption' box to the right of the implementation phase of the intervention to illustrate that action/inaction are emergent properties resulting from the dynamic interplay of generative mechanisms and critical reflection by potential adopters.
4. Per the reviewer's suggestion we have provided a clear description of critical realism just before the discussion section (see pages #5-6). We do agree with the reviewer that an understanding of critical realism's ontology is important to understanding its value for KT initiative. We have accordingly clarified the link between its defining tenets and the ontological conviction of critical realism that there is a reality that is distinct from and greater than the domain of the empirical (see pages #8-9).
5. The reviewer queries whether the studies presented in our discussion of arts-based approaches to increasing knowledge transfer were conducted in healthcare. We have revised the review to clarify the clinical areas of the research in this literature (see pages #13-14). Given the importance of this evidence for our argument that arts-based approaches be utilized, we felt it

best to include the revised literature review in the main body of the manuscript rather than in a separate file as the reviewer suggested. The reviewer also queries what the authors' recommendations are for future research in arts-based interventions. We have provided a brief paragraph outlining some recommendations (see pages #15-16).

6. The reviewer suggests that we provide primary references for the agencies cited on the first page of the manuscript. We have revised the first paragraph of the manuscript such that we no longer refer to specific governmental organizations and therefore no citations to such organizations are necessary.
7. Per the reviewer's suggestion we have deleted the word 'novel' when referring to CRARUM.
8. We are grateful to the reviewer for her suggestions regarding other literature we could consider. We do refer to learning organizations in our review of the literature on context (see page #7), and engaged scholarship as an example of how critical realism has influenced the field of organizations (see page #8).

We are grateful for your summary of the issues raised by the two reviewers that you would like for us to respond to. We have addressed these issues above. We respond to your own comments/suggestions in the following manner:

1. In response to our claim that KT initiatives falter when they neglect social environments, you note that even the simple dissemination of educational material and guidelines can have as great an effect on practice as other more active or even tailored approaches. We appreciate your point and have thus revised this claim to suggest that KT initiatives that neglect the settings for practice change can undermine successful uptake, prediction about both what will work best in a given context, and understanding about how interventions work (see page #18).
2. KT initiatives that neglect the settings for practice change can undermine successful uptake, prediction about both what will work best in a given context, and understanding about how interventions work (see page #18).
3. Regarding your point that it is not only proponents of critical realism that argue for opening the black box of implementation, we have revised the sentence to read "Opening the 'black box' of implementation is necessary..." (see page #10).
4. In response to your comment regarding our claim that the arts can offer advantages over "traditional, didactic, text-based approaches to change practice", we have deleted that portion of the sentence so that it now reads: "This is where the arts, as a medium for reaching and engaging others, can be particularly powerful" (see page #12).
5. Regarding the point you raise, in reference to Grimshaw et al. (2004), that it isn't necessarily so that KT is more successful when it consists of interactive educational interventions, we have revised our claim to indicate that there is evidence to suggest that interactive educational interventions such as workshops can result in significant changes in professional practice (see page #13).
6. We agree that the exclusive use of arts-based approaches would be limited since change is required at a number of levels. We have therefore revised the sentence "...arguably the precondition for the transformation of healthcare" to read "by offering the potential to foster critical awareness, to facilitate understanding, and nurture sympathy, arts-based approaches are well positioned to strengthen initiatives that seek to transform health care" (see page #15).

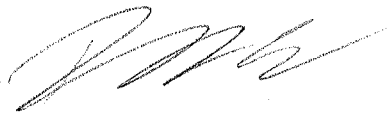
7. You indicate that you are “a little unsure as to why using arts based approaches to change beliefs and attitudes...are so fundamentally different from other change strategies”, particularly those that are operationalized from psychological theory. There may indeed be some similarities between arts-based approaches and other innovative strategies operationalized from psychological theory. However a unique and defining difference of research-based drama, particularly productions that are informed by critical social science, is their goal to engage those who are disempowered and to provide emancipatory opportunities and insights (see pages #14-15). Another important difference with research-based drama is that by engaging the imagination and fostering sympathy, health practitioners can better attend to the human dimensions of medicine and understand patients’ experiences of sickness (see pages #13-14). It is these defining differences that set research-based drama apart from other KT strategies.
8. You suggest that we provide a “worked if hypothetical example of how CRARUM might be operationalized in the development and evaluation of KT”. The section of the manuscript entitled “Moving from theory to practice” was intended to provide just such illustration. In response to your suggestion we have expanded our discussion in this section by including more specific examples (see pages #16-17).

We wish to thank you in advance for your consideration.

Yours Very Truly,



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