Reviewer’s report

Title: Understanding Professional Advice Networks in Long-Term Care: An Outside-Inside View of Best Practice Pathways for Diffusion

Version: 0 Date: 13 Sep 2018

Reviewer: Alicia Bunger

Reviewer's report:

Thank you for the opportunity to review this manuscript. This paper describes the qualitative findings from a larger mixed methods study examining roles, activities, and reasons for advice seeking within a network of long-term care facility leaders. The data illustrate the unique characteristics of opinion leaders and boundary spanners, how they diffuse information through networks, and how advice seeking relationships evolve over time. This is important work because it offers a potential explanation of the micro-dynamics of why and how networks change and is a critical complement to structural studies of network dynamics. I believe this paper would make a greater contribution to the field of implementation science (and network evolution) if there were stronger and more meaningful connections to theory, and perhaps explicit connections to dissemination/implementation strategies. Additional observations and questions are detailed below:

1. Stronger connections to theory to interpret findings, and inform dissemination strategies - This paper draws on Rogers' theory to explain the importance of interactions for diffusion (which is relevant and sound). However, there are other theories that complement Rogers, and explain in a more nuanced way how and why individuals, dyads, and by extension, networks form, evolve, strengthen, dissolve etc. These theories could be used to inform and contextualize the findings - this will help connect the findings of this study (in LTC facilities) to the broader field. For instance, finding that opinion leaders are sought out because they offer sound advice, and are approachable is consistent with transactive memory systems and organizational learning (perhaps re-examine Nebus 2006, Borgatti & Cross 2003, Hertzum 2014).

2. Since this qualitative examination of advice seeking complements quantitative/structural studies, it would also strengthen the paper to contextualize the research question and findings given these other studies of communication and advice network evolution. There are relevant examples of studies conducted in public health departments, schools, hospitals, businesses, and other settings - your findings likely converge with and might help explain those results.
3. Relatively thin background section - could benefit from a more robust literature review and grounding within larger knowledge base of key network actors when it comes to diffusion.

4. In line with my other comments, I would like to see the authors push the discussion about theory, mechanisms of action, and connect to their thoughts for development of diffusion strategies a bit further. This might entail offering some hypotheses (about how advice seeking relationships form and evolve) that could be tested in the future.

5. The majority of the information in the first paragraph of Study results (# of interviews with each type of network actor, and their characteristics) might be more appropriate in method section when describing participants.


7. In the results section, the boundary spanners do not appear all that distinct from the opinion leaders based on the data offered. This may need more in-depth treatment.

8. "Systemness" - I struggled with some of these quotes. To me, they don't illustrate an awareness of system complexity so much as a commitment to their clients/patients. This may need further examination and explanation.

9. Would the authors be willing to include the interview guide and codebook (codes, definitions, and application criteria) as supplemental files? This helps provide additional detail to readers, and enhances transparency.

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