Reviewer's report

Title: Social Networks and Implementation of Evidence-Based Practices in Public Youth-Serving Systems: A Mixed Methods Study

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Reviewer: Michel Wensing

Reviewer's report:

This paper reports on qualitative and quantitative studies in mental health services in California, using social network analysis for the quantitative part. It is linked to a larger randomized trial, that will be reported elsewhere, and tests the use of community development teams to scale up multidimensional treatment foster care (MTFC). The author refer to this program as EBP – evidence based practice, as it has found to have beneficial effects. The larger study includes 40 counties with 600 directors and organizational leaders.

Main comments

1 Sampling and boundaries of network. My understanding is that the network study aimed at a complete network of directors and equivalent persons: this should be explicitly stated. The study sample resulted from purposeful sampling, which started with 45 directors in 13 counties of whom 38 participated. They were asked to list up to 10 individuals, resulting in a total of 176 individuals. More detail is needed regarding the exact procedure (from 45 tot 176) and regarding the criterion for stop further sampling: was this some type of saturation?

2 Content of connections. The content of the connections between individuals was not clear to me. This are referred to as ‘influence’, ‘advice’ and ‘collaboration’. These are different things and may relate to different objects. Also, it is confusing that qualitative data were also used to construct matrices. Please clarify the content of the connections studied. Note that the individuals might have different networks with each other, one for each type of content.

3 The use of network analysis is relatively new in implementation research, but examples do exist. For instance, the authors should check the publications in the journal Implementation Science. It would be desirable to elaborate on hypotheses or ideas on the potential impact of the selected factors on implementation processes, particularly homophily and degree centrality. Why were the network coefficients selected, out of many others that could also have been calculated?

4 The regression analyses should be elaborated. Did these include random coefficients (for counties and organizations)? Were these linear or logistic? At what level of aggregation were network measures specified; degree centrality can be defined for individuals and for networks.

5 It is stated that qualitative research can provide in-depth understanding as opposed to quantitative research. However, I had difficulty in identifying the
added value of the qualitative research and its link to the quantitative research. The authors should try to relate the qualitative and quantitative study more explicitly. The ‘mixed-methods’ design as it stands is more like two studies in one paper.

6 I am happy to read the Discussion after the requested clarifications have been made. Currently, I find it difficult to assess it given the many questions I have regarding the study.

Minor comments
-p3 Are ‘champions’ are ‘trusted others’ equivalents as suggested?
-p4 ‘influence networks’ and ‘influence of these networks’ seems tautological.
-p4. Rephrase ‘currently funded trial’ as this may not be current anymore at the time of reading
-p7 ‘indegree centrality’ may indicate different concepts, not just status
-p10. ‘Large counties ..reported’ rephrase into ‘individuals in large countries etc.’ to avoid ecological fallacy
-p11. ‘Analysis of interviews… based on roles …’ please clarify what ‘based on’ exactly means
-p14 the first paragraph seems to refer mainly to the qualitative part, but should reflect the complete study

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

No competing interests.