

## PEER REVIEW HISTORY

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### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	Collaboration and knowledge generation in an 18- year quality improvement research program in Australian Indigenous primary health care: a co-authorship network analysis
<b>AUTHORS</b>	Bailie, Jodie; Potts, Boyd; Laycock, Alison; Abimbola, Seye; Bailie, Ross; Cunningham, Frances; Matthews, Veronica; Bainbridge, Roxanne; Conte, Kathleen; Passey, Megan; Peiris, David

### VERSION 1 – REVIEW

<b>REVIEWER</b>	Niyirora, Jerome SUNY, Health Information Management Department
<b>REVIEW RETURNED</b>	16-Aug-2020

<b>GENERAL COMMENTS</b>	<p>The authors of this paper examine the evolution of the network of researchers who collaborated about the studies of quality improvement in the Australian Indigenous primary health care. Comments to the authors:</p> <ol style="list-style-type: none"><li>1. The objective of your study is not clear. I would recommend rewriting the paper and clearly state the research question that you are entertaining or trying to answer. Maybe you can focus on proving that the stated funding has led to increased collaboration, as supported by the dynamics of your networks.</li><li>2. The claim made about stakeholder networks being facilitators of continuous quality improvement (CQI) programs is not necessarily valid. One can carry out a CQI program (e.g., a six-sigma program in hospital) without regard to any network of researchers or any collaboration.</li><li>3. In your conclusion, you claim, "Increasing the number of diverse collaborations and creating a more decentralized network improved productivity and increased research impact by advancing the knowledge and practice of CQI in primary health care." This claim is not well supported by your research, as there are no statistics to support the research impact on the quality of the primary care of the indicated indigenous population.</li><li>4. Are there any data to support a correlation between the improvement in the quality of the primary care for the Australian Indigenous population and the participatory research that you examine in your networks?</li><li>5. I would recommend creating a separate section or subsection in the introduction part of your paper and clearly state the contributions of your work over the existing methods or research about the same topic.</li></ol>
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<b>REVIEWER</b>	Schneider, Helen University of the Western Cape, School of Public Health
<b>REVIEW RETURNED</b>	03-Sep-2020

<b>GENERAL COMMENTS</b>	An excellently argued and presented paper. Three minor comments in an otherwise flawless manuscript, the first two relevant to the discussion section, and the last to the abstract: 1) given the prominence of a central research leader throughout the period, who (it seems) may also be co-authoring this paper, some statement of reflexivity would be warranted. What has been the role of this leader, and to what extent are there other emergent nodes in the network able to assume such roles in future? 2) while this is alluded to indirectly (researchers playing different kinds of roles), it may also be worth stating that a collaborative research network is not the same as a collaborative provider network (even if they overlap considerably) - the latter will have its own metrics shaping quality outcomes, independent of the research conducted. 3) while Indigenous authorship has grown, it would be good to state upfront (in the abstract) that Indigenous authors are still in non-leadership positions and that this remains a challenge for equity and for meaningful knowledge creation (as indicated in the discussion).
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### VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

4. The objective of your study is not clear. I would recommend rewriting the paper and clearly state the research question that you are entertaining or trying to answer. Maybe you can focus on proving that the stated funding has led to increased collaboration, as supported by the dynamics of your networks.

Thanks for your feedback on this. We have adjusted the wording in the introduction to reflect a clear research question:

Introduction Page 5, Lines 21-27: “The study uses co-authorship network analysis to examine the growth and change in an 18-year CQI research network in Australian Indigenous primary health care. We address the question: How did the research network expand and change over time? Specifically we will investigate the extent to which the research network brought together people from a variety of organisations; the structural characteristics of the network; the level of equity in authorship relative to Indigenous status and gender; capacity strengthening efforts through examining student authorship; and changes in research themes over time.”

5. The claim made about stakeholder networks being facilitators of continuous quality improvement (CQI) programs is not necessarily valid. One can carry out a CQI program (e.g., a six-sigma program in hospital) without regard to any network of researchers or any collaboration.

We have amended the abstract to say: “Though multidisciplinary research networks support the practice and effectiveness of continuous quality improvement (CQI) programs, their characteristics and development are poorly understood.” Our references in main body of manuscript refer to multi-site and multi-stakeholder collaborations.

6. In your conclusion, you claim, “Increasing the number of diverse collaborations and creating a more decentralized network improved productivity and increased research impact by advancing the knowledge and practice of CQI in primary health care.” This claim is not well supported by your research, as there are no statistics to support the research impact on the quality of the primary care of the indicated indigenous population.

Thank you for identifying this issue in the reporting of our conclusion. As noted in responding to Editor we have amended this statement in the Abstract Conclusion. You will also note from the responses above to the editor that we have ensured we have clarified this throughout our manuscript.

7. Are there any data to support a correlation between the improvement in the quality of the primary care for the Australian Indigenous population and the participatory research that you examine in your networks?

As mentioned above the focus of this manuscript was on the network as a whole rather than the impact of specific research projects conducted by the network. However, we can appreciate your interest in this aspect. In Table 1 we point to the main research findings from the network and have numerous links to publications. Of note we highlight: "Demonstrated improvements in quality of care in some areas, and continuing wide variation between PHC centres and jurisdictions." We have provided an additional reference to this statement.

We have also added a sentence into the setting description, as we agree this is an important contextual backdrop. Introduction, Page 6, Lines 14 – 165: "Importantly, there have been demonstrated improvements in quality of care in some areas of clinical care, and continuing wide variation between PHC centres and jurisdictions."

8. I would recommend creating a separate section or subsection in the introduction part of your paper and clearly state the contributions of your work over the existing methods or research about the same topic.

We thank the reviewer for this suggestion, however we believe that we have described the rationale for using the methodology of the co-authorship network and the contribution that it will make in the Introduction, Page 5, in paragraph 2 and 3.

Reviewer: 2

9. An excellently argued and presented paper. Three minor comments in an otherwise flawless manuscript, the first two relevant to the discussion section, and the last to the abstract.

Thanks for this positive feedback to our manuscript.

10. Given the prominence of a central research leader throughout the period, who (it seems) may also be co-authoring this paper, some statement of reflexivity would be warranted. What has been the role of this leader, and to what extent are there other emergent nodes in the network able to assume such roles in future?

We have included a statement in the limitations Page 21, Lines 17 - 21: "Three of the eleven authors on this manuscript (RSB, JB and VM) had published more than 20 manuscripts included in this analysis, and RSB was the Chief Investigator on the research network during this period. Given this, and to mitigate against bias, BP who has not published as part of this network undertook the network analysis and a blind review process for categorising the manuscripts, with discrepancies discussed."

We also included additional information into the declarations section regarding author information.

In the discussion we added, Page 18, Lines 25 – 28: “As there was the same Chief Investigator throughout the study period, this finding of a core-periphery structure indicates the network expanded to have other core organisations over time, and was not just centred on the Chief Investigators organisation.”

11. While this is alluded to indirectly (researchers playing different kinds of roles), it may also be worth stating that a collaborative research network is not the same as a collaborative provider network (even if they overlap considerably) - the latter will have its own metrics shaping quality outcomes, independent of the research conducted.

We believe that the manuscript clearly describes the collaborative research network, and its membership. Though we agree that they are different entities, we do not think it would add to the paper to distinguish it from a collaborative provider network.

12. While Indigenous authorship has grown, it would be good to state upfront (in the abstract) that Indigenous authors are still in non-leadership positions and that this remains a challenge for equity and for meaningful knowledge creation (as indicated in the discussion).

We have added into the abstract conclusion and main body conclusion: “Despite improvements, further work is needed to address inequities in female authorship and Indigenous authorship.”

#### **VERSION 2 – REVIEW**

<b>REVIEWER</b>	Schneider, Helen University of the Western Cape School of Public Health, Community and Health
<b>REVIEW RETURNED</b>	26-Jan-2021
<b>GENERAL COMMENTS</b>	The minor comments I made on the previous version of the manuscript have been addressed