Reviewer’s report

Title: The impact of the introduction of nurse consultants on patient health and service outcomes: a historically matched controlled study

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Reviewer: Pamela A Ohman Strickland

Reviewer’s report:

In general, the paper is well-written. However, there are a few glitches with English. While the methods are not particularly exciting, the paper’s topic is of critical importance as different models of healthcare are being modified and evaluated worldwide.

Major Compulsory Revisions:

1. Sample size (first paragraph of Methods). If the authors are going to say that “the sample size was anticipated to provide adequate information …,” they really need to say on what basis they made that judgment.

2. Data Analysis. None of the methods account for matching. In general, the statistical methods used should match the study design! For summary, see Niven et al. (2012), “Matched case-control studies: a review of reported statistical methodology” in Clinical Epidemiology. There may also be better summaries/textbooks detailing appropriate methods. This whole section (and hence Results) needs revision.

3. End of last paragraph of Results (page10). The authors state “The mean subscale scores of PSI of the NC cohort are also pretty high in view of the upper limits of the subscale scores (Table 4).” This statement lacks rigor. There is also a similar statement in the sixth paragraph of the Discussion. There are plenty of scales with means that are not at the middle of the range of possible scores. The only way to say that patient satisfaction was relatively high is to compare the values obtained with a reference group – either from the study or previously published research. Presumably this survey has been used in previous studies and benchmark values have been published.

4. In the discussion, the authors cite differences between specialties in the outcomes (fourth paragraph of Discussion). It seems that the authors have missed an opportunity to examine differences in the effect of NC for each of these specialties. At least, if the authors are going to make claims in the discussion, these claims should be supported by the data presented in the Results. Perhaps, the results concerning Services outcomes could be stratified by specialty.

Minor Essential Revisions:

5. In a couple of places, the authors refer to “Consultancy project” or
“Consultancy study.” I have no idea what these mean. If the authors were hired as independent consultants by the Hong Kong Hospital Authority, then this should be listed in the Conflict of Interest section and/or funding acknowledgements (of which I see none).

6. Fourth paragraph of Methods. Reliability. If the authors are going to cite reliability as a reason for selecting certain outcomes, they should give evidence or grounds for reliability.

7. Sentences 3 and 4 should be rewritten in the second to last paragraph of the Background. They are awkward. (I don’t think you really need sentence 3.) Perhaps just write, “This study focuses on the XXth domain, using outcomes related to…” Authors should specify how assessment of their outcomes contributes to understanding any of the domains.

8. The fifth sentence needs to be rewritten. In general, study results are published rather than data.

9. In the last paragraph of the Background, the authors refer to a larger study as well as the currently reported pilot study. If the larger study has already been conducted, then why is a pilot study needed? How does this “pilot” study fit in with the larger study. Why not just report on the larger study?

10. In paragraph three of the Discussion, authors need to better tie in the current study with the larger study (rather than just stating conclusions of larger study).

**Level of interest:** An article of importance in its field

**Quality of written English:** Needs some language corrections before being published

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

**Declaration of competing interests:**

I declare that I have no competing interests.