Reviewer's report

Title: A qualitative comparative analysis of well-managed school sanitation in Bangladesh

Version: 2 Date: 31 July 2013

Reviewer: Matthew Freeman

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Chatterly et al

Review

This paper uses a unique methodology that combines qualitative and quantitative data collection and analysis to describe the management of school-based sanitation and hygiene in Bangladesh and its impact on sustainability. Case study methodology is employed in order to understand best and worst case practices. The paper is well-written and the objectives are clear, but I suggest some considerable reorganization to make it more accessible and readable. The take-home messages are not clear and the flow of the methods, results and discussion are difficult to follow at times.

Assessing reasons for well managed school sanitation and hygiene is a critical problem for public health and development and the research presented here is warranted. New methods and approaches to understanding the mechanisms for program improvement will be useful for the sector. As a general point to the authors: care should be taken to highlight the findings that are most externally applicable. Many of the findings and discussion presented are done so in a way that may only be applicable to the specifically programmatic context in Bangladesh. In revising the article, please highlight applicable findings for the broader sector.

1. Is the question posed by the authors well defined? Yes, the question is well defined.

2. Are the methods appropriate and well described? Yes, the methods are appropriate and well described, but a conceptual framework further describing the approach would be useful.

3. Are the data sound? Yes, though there are some questions about the exclusion of certain school scenarios that need justification.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition? N/a

5. Are the discussion and conclusions well balanced and adequately supported by the data? The discussion needs some revision to appropriately contextualize the findings. Most of the discussion is a reporting of qualitative results. This should be amended to make the paper more readable.
6. Are limitations of the work clearly stated?
7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished? Yes
8. Do the title and abstract accurately convey what has been found? The results section in the abstract needs some additional clarity.
9. Is the writing acceptable? The writing is clear, though I suggest some considerable reorganization of the methods, results and discussion section.

The essential revisions suggested here are mostly for the sake of clarity and readability of the text:

1. In the abstract, it is not clear what is meant by the 3 pathways. Some additional clarification in the results section of the abstract would be useful.
2. I’m not sure that the removal of schools where no repair had taken place is empirically justified. Do we know that breakdowns will necessarily occur, perhaps schools where no breakdown occurs are the most sustainable? What if well-managed facilities have the necessary operation and maintenance to avoid any kind of breakdown?
3. Page 9 includes some of the domains used for questioning. However, these details are critical for understanding the study and seem buried at the bottom of a paragraph. Providing some context for why these domains were chosen and the literature support for choosing these domains would be useful. Consider adding a paragraph prominently in the results that concisely summarizes and justifies the key domains. A table may be useful.
4. The methods are quite interesting and seem very applicable for this research question. Most readers will not be familiar with the approach, so the paragraphs explaining the approach are useful. A conceptual framework that outlines the methods and approaches, and describes the iterative process in terms of phases, would add clarity to the approach to those unfamiliar. My understanding is that the method is somewhat iterative, so that conceptual framework would be helpful.
5. There is some mixing of results into the methods section, e.g. page 10: “having a single, dedicated teacher responsible for toilet maintenance appeared to be very important.” Most of the methods from “outcome” until the end of the section read like results. Can these results be moved to the appropriate results section (adding subheadings to the results section) to make the methods more concise and readable?
6. Similarly, there are methods described in the results section, i.e. “necessity and sufficiency are calculated through consistency measures, which evaluate the frequency with which conditions are present when the desired outcome is achieved. Conditions with a consistency score of 0.9 or higher are considered “necessary” or very common, while combinations of conditions with a consistency
score of at least 0.8 are considered sufficient.” The methods section needs additional specificity of the methods for FGDs: data collection and analysis. What theories and computer programs were employed? What language? How were tools developed and piloted?

7. The discussion section focuses almost exclusively on the qualitative findings, often presenting quotations from FGDs. It seems to me that these data should be presented in the results, with the discussion focusing on a more concise summary of take home messages and the use of findings from other studies for contextualization.

8. Page 20: “The first pathway.” This “first” is unclear…is that a designation of primacy or just the order in which the pathways are presented? A description of the three pathways in summary before a discussion of each pathway would be useful.

9. I suggest that the discussion section start with highlighting the main findings, rather than a comparison to another study. The contextualization of this study compared to the Belize work is useful, but should be moved to later in the discussion.

10. I don’t understand what this means “if we run necessity analysis on community support or government support, we find that financial access, from either of these two sources, is necessary with a score of 0.90.”

11. In the discussion, a summary paragraph on the “implications for policy and planning” would be useful, before going into more detail on the individual components.

Discretionary revisions:

12. Check for British spelling, e.g. enrollment vs. enrolment
13. Spell out acronyms, e.g. SMC, during first use
14. There is really not a need to report three significant digits for p values.
15. There is a page number cited on citation 29?
16. The authors use an excessive amount of transition words – additionally, in addition, specifically, it is interesting to note – that don’t add much value to the narrative and that may be distracting to the reader. I suggest a re-read of the text to ensure that these words add value to the text.
17. The table formatting does not seem to adhere to BMC formatting guidelines
18. Table 2 does not stand on its own in terms of content and context. Consider a footnote that more fully explains what is being presented. There are a lot of acronyms in the table that are not defined.

Level of interest: An article whose findings are important to those with closely related research interests
Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests