Reviewer's report

Title: Patient safety culture: Partitioning the variance by organization level

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Reviewer: Christine Holzmueller

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Major Compulsory Revisions

This study is important in that it looks at the variance in patient safety culture by institution, department, ward, and microsystem (clinical disciplines). Drilling all the way down to evaluate this variation is excellent. However, I have major concerns about the reporting of this study. In many instances, I am rather confused and there seem to be huge gaps in information needed in the manuscript.

1. Background: The background section includes information that should be moved to the methods section or is already in the methods section. I would delete it. They talk about Norway being a 'late comer to patient safety.' I would be more interested in knowing why patient safety is now a national policy issue in Norway. There must be some research demonstrating that patient safety is a problem; this needs to be described and cite. Why did the authors decide to study safety culture? In the U.S. Sexton and others are studying safety culture and I know it is important, but not all readers will know why. This should be explained and their study put in the context of what has been done in this area and what their study adds. One study I recently read by Singer et al has found that safety climate varies by work area and discipline more so than by hospital. This should at least be cited. (Singer SJ et al. Patient safety climate in 92 US hospitals: differences by work area and discipline. Med Care 2009;47(1):23-31.)

2. Methods: This is an old cliché, but the Methods section should read like a food recipe. All the ingredients should be included and clearly explained so another could replicate the research. There are many missing elements in this section. I suggest the author use a template that includes the study design, setting and participants, survey, data collection, statistical analysis, for example. The SAQ is not described at all in the methods beyond have seven factors, although the factors are listed in the results section. How was the SAQ administered and was it done confidentially and anonymity maintained? Importantly in the methods, the factor scores should be explained clearly so the reader knows what is a good culture score. I don’t know the scale score for the SAQ items and whether percentages were used to describe and roll scores up from the individual level to the unit, department, and hospital level. Not everyone is statistically savvy, including me at times, the authors should more clearly write the statistical analysis section. Their explanation of the ICC score is confusing me, even though I sure that the higher the ICC number the greater the variance.
3. Results: I am not clear why the authors benchmarked their culture scores against inpatients scores published by Sexton and colleagues. This is not mentioned anywhere in the introduction or methods. I thought the purpose of this research was to study variation within one hospital. The authors should just compare results in their hospital. They could refer to the benchmark results from Sexton in the discussion section to help validate their findings.

4. Discussion: Again, I thought the focus of this paper was evaluation culture variation within one hospital. Yet, the major findings of this study (or at least I think they are the major findings) are that the greatest variation in culture occur among clinical disciplines and unit/wards in the hospital. This is buried in the third paragraph of the discussion section; it should be the first paragraph. There is no discussion of where these results fit in the context of other study results, are they similar are they different? Remember Sexton benchmark study results.

In summary, this paper needs major rewriting to add content and reorganize some of the current content. I described above some of the more major issues that I saw with the paper. Moreover, it is not well written and should flow much better than it does so a more global audience will understand what is being said. This will require major editing.

Minor Essential Revisions

1. The title of the manuscript is not informative. I would suggest revising, a suggestion is – Variation in patient safety culture: Wards and clinical disciplines need help – or something along these lines.

Level of interest: An article of importance in its field

Quality of written English: Not suitable for publication unless extensively edited

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests.