Reviewer's report

Title: Factors influencing the development of evidence-based practice among nurses: a self-report survey

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Reviewer: Dana Rutledge

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Review of Factors influencing the development of evidence-based practice among nurses: a self-report survey

This interesting article is focused on results from a study done in Norway at a single hospital, asking nurses to respond to a survey about their use of information sources, barriers to using evidence-based practice in their work, and associations among select demographics and sources/barriers, and among EBP skills (self perceptions) and 2 sources (seeking information from nursing/medical journals). The researchers obtained an excellent response rate in surveying nurses from "somatic" units in the hospital (61%). They used a tool developed in Great Britain that has been reported on in a few studies.

Because of the international push to use evidence-based sources for clinical decisions in nursing and other disciplines, this study is timely and findings would be of interest to BMCHSR. My comments below are meant to be constructive. The study itself is sound… its reporting could be improved, especially by thoughtful presentation of the data, and expansion of the discussion.

I have coded my comments below based upon the BMC criteria of

- Discretionary Revisions (DR; which are recommendations for improvement but which the author can choose to ignore)
- Minor Essential Revisions (MER; such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
- Major Compulsory Revisions (MCR; which the author must respond to before a decision on publication can be reached)

1. Is the question posed by the authors well defined? The research questions identified by the researchers are clearly identified just prior to the methods section.

2. Are the methods appropriate and well described? The methods are clearly presented.

MER. A description of the lack of evidence of validity and reliability of the tool used (DEBP), or evidence of any internal consistency calculations done with the Norwegian sample would be appropriate. One use of the DEBP attempted to aggregate responses across items (see Rutledge & Skelton, 2011).

MER. The presentation of data with altered "indices" (20-100) takes away reader
understanding of the meaning of the numbers in tables 2 and 4 (Gerrish in her manuscripts keeps the original response sets, and clearly delineates meaning by using a note in tables; also, see Rutledge & Skelton presentation of findings). Keeping closer to the response sets would be more meaningful… if a mean were calculated, it must be interpreted in terms of the original response set.

MCR. Multiple comparisons are done in the analyses… no mention is made of the enhanced likelihood of Type 1 errors. A more conservative p-value than .05 would be more appropriate.

DR. Only in Table 5 is there an attempt made to aggregate individual items from the DEBP into categories. Since the DEBP does not have subscales, this is a problem with its usage… makes reporting difficult. The researchers could attempt a factor analysis or some way to aggregate items within each of the five DEBP sections??? Might make reporting easier, and enhance readability of findings. For example, Table 3 is almost impossible to interpret for the reader; it reports ALL of the sources of evidence associations with 3 demographic variables… what about reporting associations among “types of evidence” (e.g., experiential, evidence-based, etc.) and these variables?

3. Are the data sound?
See comment about data analyses.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
Yes

5. Are the discussion and conclusions well balanced and adequately supported by the data?
MCR. The discussion does not lead in with the primary findings of the study, as I would have expected…. that Norwegian nurses in a large hospital report similar resources for decision-making and barriers to EBP as nurses in most developed countries.

More general topic sentences would be helpful...
MCR. and more recommendations for practice, education, and research throughout the discussion are warranted.

MER. The discussion brings in some key literature findings, but doesn't fully address some findings. The paragraph about heavy reliance on hospital policy and procedures alludes to the fact—but does not state--- that if policies and procedures are well-developed, based upon good evidence, and used by nurses, this shows that EBP is happening. A limitation of the study is that we don’t know whether the policies and procedures ARE based upon good evidence.

MER. Great section on barriers and culture… one typo: “Findings [25] indicate that administrative and collegial support probably more strongly influence the use of research that?? lack of time resulting from a high pace of work.”

MCR. One of your most important findings was the association between skills and barriers/sources. The paragraph about this is not strongly written. First, a minority of your nurses have competent/expert skills in the three areas (find (39
nurses), assess (59 nurses), use findings (25 nurses)), but those that do are most likely to use the best evidence (findings from clinical nursing/medical journals). Use of some of these specific findings would speak to the reader…

MCR. In terms of significance, there is no mention of how sources of evidence used by individual nurses and the reported barriers to EBP by individual nurses affect actual practice and care delivered by nurses at the hospital… and whether practice changes at the hospital are being driven by high level evidence. The focus of the study is on the individual nurse – a limitation in terms of significance. No mention of patient outcomes…

6. Are limitations of the work clearly stated?
MCR. No, need to include generalizability issues, and problems with the tool you used.

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?
MER. See Rutledge & Skelton, 2011 (may be helpful, may not)

8. Do the title and abstract accurately convey what has been found? Yes
9. Is the writing acceptable? Yes

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

**Quality of written English:** Acceptable

**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'