Reviewer’s report

Title: Revitalizing physical assessment in undergraduate nursing education - what skills are important to learn, and how are these skills applied during clinical rotation? A cohort study

Version: 0 Date: 04 Mar 2019

Reviewer: Carol Windsor

Reviewer's report:

Revitalizing physical assessment in undergraduate nursing education - what skills are important to learn, and how are these skills applied during clinical rotation? A cohort study.

Thank you for the opportunity to review the above titled paper. The research reported upon in the paper is very topical and adds to a small but growing body of research on the use (or not) of physical assessment skills by nurses in practice. I offer the following points for consideration by the authors.

I wonder if the background to/rationale for the research could be stronger. Yes patient acuity is increasing. But as the Lynaugh and Bates (1974) article that you reference indicates the broad discussion around nursing physical assessment skills has been going on for decades. Think about why this issue is receiving attention now.

The background discussion also refers to the question posed by Lesa and Dixon (2007) about why 'the full repertoire of physical assessment skills’ are taught if they are not used. I think Giddens and Eddy make a similar point. The following two sentences are not clear for me and so I can't see what you are doing with the question. Perhaps argue that there others factors that can explain the limited use of assessment skills. The author/s then write that 'these aspects were taken into consideration 'in the education plan that was added to the curriculum. How did these factors inform the curriculum?

I am surprised that the body of work in this very area by Douglas et al (from Australia) does not appear in this brief lit review. I think it provides some different views on the same issues. Please note that I am part of this research team.
The research aim is clear. But there is no mention of when the curriculum changes were put in place and the rationale for selection of skills to be taught is missing.

The discussion on written assignments does not seem to inform the research. The clinical contexts are interesting. I wonder if any analytical work was done to see if context was an important variable in use of assessment skills.

Recruitment needs to be addressed in greater detail. How were students invited to undertake the questionnaire and how were students recruited to the focus groups interviews?

It is stated that first and second year students were surveyed and second year students were surveyed in their third year. Were baseline data collected and if so was the post curriculum questionnaire undertaken only by one group? Or were the two surveys of the one group undertaken to cover second and third years. I wonder then the effect of surveying the same group twice might have been. Again the detail is not here. Also how did the background variables come into the analysis?

The section on focus group interviews lacks justification. The focus group interview does have a methodological function - it is about constructing meaning through interaction. This approach needs to be (or sound) rigorous. This includes analysis of focus group interview data which should involve more than 'reading'. I am unsure that three people could constitute a focus group. One suggestion is to leave out this part of the research.

Yes, the low scores on percussion and auscultation are interesting. Context as a variable is not addressed. But as suggested above the clinical rotations covered areas such as health promotion, home care and acute and core physical assessment skills in these areas would differ.

I think the discussion should address in greater depth literature on the constraints on nurses practicing autonomously. I don't think that a return to the issues of written assignments and training with other students gives insight into why nurses do or don't use physical assessment skills in clinical settings.
The survey sample is impressive and so there will be enough data to say something of interest. But the interpretation of the statistical analysis needs to be stronger and well grounded in existing knowledge.

The paper needs a careful edit. There are too many issues to list here.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

No

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

No

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

No

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Not suitable for publication unless extensively edited
**Declaration of competing interests**

Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests.

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal.