Reviewer's report

Title: Capturing Judgement Strategies in Risk Assessments with Improved Quality of Clinical Information: How Nurses' Strategies Differ from the Ecological Model

Version: 2
Date: 13 August 2015
Reviewer: Allison Foster

Reviewer's report:

Discretionary Revisions:

1. Line 47: The three sentences between lines 47 and 49 are worded in an awkward manner and should be rephrased.

2. Line 70: In the sentence, “Adverse observations trigger intervention and management, often in the form of expertise - such as a critical care outreach team.” Recommend that the last part be reworded to: “such as that offered by the critical care outreach team.”

3. Line 317: Recommend to add the word ‘some’ the sentence: Despite such wide variations, nurses both under-values cues …”, so that it reads, “Despite such wide variations, nurses both under-values some cues…..”

4. Line 321: Recommend that the text stay consistent and refer to students and nurses; changing, thus changing, “Experienced and student nurses both used more cues that needed to make appropriate judgements…” to “Both experienced nurses and students used more cues that needed to make appropriate judgements…” Also change the word ‘that’ to ‘than.’

5. Line 340: Recommend to add the word ‘in’ to the following sentence: “Moreover, nurses used more available information in clinical simulations than paper cases” to “Moreover, nurses used more available information in clinical simulations than in paper cases.”

6. Line 399: Recommend to edit the sentence here by shifting the sentence from “This can allow nurses to refine their judgement behaviours…” to “These simulations and the awareness they provide can allow nurses to refine their judgement behaviors….”

Minor Essential Revisions:

1. Line 31: This first premise (“This paper tests the hypothesis that nurses’ judgement strategies and polices change with improvements in the quality of information used by nurses in simulation.”) is not completely clear as to whether the hypothesis is that judgement changes are related to the quality of
information, related to how nurses use the information, or whether the simulation is the critical variable. It is better stated in Line 129.

2. Line 31: Recommend that the use of the terms ‘judgement strategies’ remain; while the use of judgement ‘policies’ (used initially in line 31; again in line 37, 129, and several times throughout the paper) be replaced with terms such as ‘judgement practices’ and/or ‘judgement processes.’

3. Line 37: In addition, recommended that in lines 37, 327, and 343, refer to the term ‘judgemental correctness’ and should be changed to ‘judgement correctness.’ These changes will not only clarify meaning but will better align with the language used in Yang’s and Thompson’s earlier article (BMC Med Inform Decis Mak. 2014 Nov 15;14:96. doi: 10.1186/1472-6947-14-96).

4. Line 89 – Do we understand ‘how’ nurses from this article; do we understand the cognitive mechanisms from this article – or is it rather that this research opens the door for further exploration, then these areas for further research should be addressed again in the discussion section at the end – meaning the questions of ‘how nurses weigh and combine cues’ and “What cognitive mechanisms nurses use to process clinical information” (Line 112).

5. Line 379 and 386: The cognitive feedback is an important element for future research that comes out of the findings of this research. It seems to merit an earlier mention and highlighting throughout the paper, particularly as evidence shows that cognitive feedback helps physicians to improve their judgement performance. Recommend that this element be introduced in the paragraph of Lines 88-93)

Major Compulsory Revisions:

1. Line 391: The research did not show that nurses’ judgement strategies vary with increased years of experience from novice to ‘more experienced.’ There were only two participant groups, one of students and one of ‘experienced nurses.’ There was no investigation of the number of years experience as a factor in judgement strategies so this sentence is not applicable. Further, it is recommended that in Line 229 the mention of the average of 12 years of experience be accompanied with additional detail – something to the effect of, “The nurses had an average of 12 years of clinical experience, with a minimum of xx years of experience.”

2. Line 392: In this phrase the ‘may explain’ is important here - Recommend a more conservative conclusion that the findings suggest that the mismatch is a factor. It should be important to mention the importance of controlling other variables – perhaps earlier in the ‘strengths and limitations’ section. For example, how well the nurses are trained in interpreting and judging the response to risk indicators should also impact the results. Other studies have focused on education as reason that the suboptimum response rate is so high.

3. Overall purpose: Recommend that the overall purpose of the paper be made
more clear. The data is sound, the research is grounded. And the technical quality is very good. Recommend that some time be spent in re-reading the text and re-directing the language so that it is more focused with regard to the question that is being posed. As it currently reads, the reader is not sure that it is quality of information that is being explored as an important factor in judgement strategies, if it is years of experience that is supposed to have been measured, if it is an attempt to improve the understanding of the cognitive mechanisms of how nurses process clinical information, which was also not the exact purpose of the paper. These are all different from the three objectives described in Lines 114-124. This reviewer finds that the paper achieves its objective ‘i’ in Line 166. It also achieved ‘ii’ (although, again it is recommended that the term ‘policies’ be changed. This reviewer disagrees with ‘iii’ (Line 121). The comparison was between students (still completing their nursing diploma) and experienced nurses, who have already finished their diploma and have an average of 12 years of experience among them. If we are going to state here that this is an important factor, then the paper would need to follow a wider age band and compare differences among the experienced nurses according to number of years’ worked.

**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’ below. If your reply is yes to any, please give details below.