Reviewer’s report

Title: Evaluation of the Korean Version of the Self-assessment of Nursing Informatics Competencies Scale

Version: 0 Date: 28 Jun 2019

Reviewer: Fiona Nolan

Reviewer's report:

This is a well written paper with flawless English, which describes a robust process of analysis.

There are several issues which need to be addressed before publication however, chief among them the rationale for using the specific measure, the process for identifying competencies. Information on acceptable scoring is also needed- e.g. is a nurse unsafe if he scores less than 5? How are parameters for acceptable scores developed and defined? If this information is missing then a reflection would be expected in the conclusion and limitations sections, with recommendation for future research.

Abstract:

The authors should inform as to whether the SANICs is widely used and has had good results. A brief rationale for using this particular measure is needed

Line 11 is unnecessary, and I suggest removing

Line 18: Delete 'and its' and replace with 'across'

Line 30: How does this compare with the categories in the original version Are these totally new?

Page 3

Line 13-14: This is misleading- it reads as though nurses cannot perform patient centred care without electronic record systems, which is not the case. Please revise the statement to indicate that these systems can facilitate patient centred care.
Lines 42-48: Was this curriculum content provided in all universities nationally? Why is it piecemeal? Please provide more information to clarify your assertion here.

Lines 50-52: Please clarify whether you mean that students are more knowledgeable than lecturers or vice versa.

Page 4

Line 23: The authors refer to existing scales which they say 'do not reflect the latest advances in the field', yet they go on to describe the development of the SANICS, to include these development, in 2009. There is a problem with tenses here, with a development pre-2009 being referred to as current. Please revise.

The authors describe the SANICs as covering aspects which were omitted by the other 2 measures by Staggers et al, and Cornenwett et al. There is no information as to the effectiveness of the English version (did it do what it was supposed to) or the frequency with which it had been used. The rationale for introducing the measure to a Korean population should be expanded.

Page 5

Please state how many nurses were in the potential pool of participants from these 3 provinces. Was there a separate university in each province, or a separate hospital?

Line 25: Given the international readership of the journal it will be necessary to briefly explain 'baccalaureate program'

Line 33-37: There is an implication here that only 3rd or 4th year students had access to the hospital information system. Did 1st or 2nd year students not access clinical records in this way?

Line 33: The crucial issue of competency is mentioned here, but at no other point in the document. How did the scores measure this?
Line 60: Use of the word 'adequate' is a bit jarring. A preferred phrase would be to say that the ethical review board deemed the information provided to be adequate.

Page 6

Please describe who the investigators were. Were they university lecturers?

The details on data storage would be better moved to the 'data analysis' section.

Line 6: Do the authors mean 'lecturers' rather than 'professor'?

Line 11: Who were the research assistants and what was their previous relationship, if any, with the participants?

Line 16: What was the response rate i.e. how many students were approached to participate, compared to the number who took part.

Line 20-21: If written consent was provided, was this scanned then stored electronically? What happened to the hard copies of the signed consent forms?

Line 23: The authors state that 'personal information that may identify study participants was not collected', yet the questionnaires asked participants for their age and gender. These data are personal, hence the phrase is incorrect. Please remove amend to state that gender and age were the only personal details requested.

Lines 37-52: Please indicate whether the translation process was in line with recognised guidance, e.g. from the WHO. There are several methods of translation- please indicate the rationale for choosing this one.
Line 45: Please state who 'the researcher' is, as referred to here (identify in terms of being a member of the study team or otherwise)

Page 7

Line 25: Please say why the pilot data were not included in the analysis. Was this something that could have been considered? If so, it can be included in the study limitations.

Line 38: Again, for an international (non-American) audience the use of 'major' should be explained.

Section on data collection:

Please describe the investigators- were they members of the study team?

Were the students approached on one day only or across several days at each site? How many sites were included? 96

How refusals to participate were recorded (how were those who declined to take part assured that researchers would not continue to approach them on other occasions)?

How did the researchers ensure that people were not given the questionnaire more than once?

How long were the students given to make the decision to participate?

Where was the data collected? The section on ethical considerations mentions that the researcher 'left the room' to reduce the risk of the students feeling coerced to participate. Please clarify whether the students were asked to complete the questionnaire immediately, or whether they could complete it at home, or at a later time.

Please give a little more detail as to how the completed questionnaires were submitted (e.g. in a post box, delivered straight to the research team, or otherwise).
Page 8

Line 52: Please insert the N before the percentage given, and give the range for age. Please indicate whether this was a representative sample of the total nursing student population in the area, and nationally.

Line 59: Please clarify that the need for computer and informatics education was identified by the students themselves.

Page 10

Please provide the names of the factors in the original version, to enable the reader to make a comparison between those identified in the Korean version.

Line 55: The following section describes the outcome of identifying the factors, not the process. The section from Line 54 on page 10 to line 6 on page 12 would be more clearly presented in a tabulated format, to replace the text. This complete section should be under the 'results' and not discussion. Please amend.

Page 12

Lines 8-10: Please present this statement as an opinion of the author who is referenced and not as a fact.

Lines 18-19: The authors state 'our scale includes....' Can they clarify whether these component were in the original version prior to translation?

Page 13

The authors should include some reflections as to the degree to which their analysis may have been influenced by including a non-Korean in the research team
Line 18 -36: These are results and should be included in the appropriate section

The discussion section should include some thought about how competencies are set. How would they be determined and by whom?

The text on page 14 'the K-SANICS should be an appropriate tool for measuring informatics competency in nursing students, and we expect it to be useful in research as well' needs to be expanded. How will the effectiveness of this tool be measured, and how has it been measured to date?

If this is missing from the evidence to date please identify it as a limitation and include some thoughts as to how this could be addressed in future studies.

Reference to evaluations of competencies of other healthcare professionals is needed.

Please provide some detail as to the value of assessing competency during training, with particular emphasis on the impact on patient care.

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

Yes

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

Yes

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

Yes
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:

Acceptable

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