Author’s response to reviews

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

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Author’s response to reviews:
We greatly appreciate your thoughtful comments that helped improve the manuscript.
We revised the manuscript carefully according to reviewer’s comments and marked the revised text using red colored highlighting.
We hope you will consider this paper suitable for publication in your journal.
Thank you in advance for your consideration.

[Reviewer 2]
Declarations;
Line 22-23: This sentence needs tidying up- and the ‘due’ deleted.
: Thank you for your comment. We wrote the sentence according to the BMC nursing submission guidelines.
◊[Line 22-23] The datasets generated and/or analyzed during the current study are not publicly available to protect the participants but are available from the corresponding author on reasonable request.
Abstract:

The link between the K-SANICS and the need identified in the first sentence is not present. Wording is needed to indicate that the authors hoped that the K-SANICS would address the lack of an existing measure.

We revised the first sentence.

◊ we need a comprehensive Korean version scale that reflects the important advances in nursing informatics and can make up for the lack of an existing measure.

Page 3

Line 13- Please change 'to perform' to 'in carrying out'

Line 57: Change 'needs of students related to nursing informatics' to 'needs of students in relation to…'

: Based on your comment, we changed them.

Page 5

Study setting and sample; the authors use 'grade' and 'year' interchangeably. As grade implies a ranking, the use of 'year' is more appropriate here, and should be used consistently.

: According to your comment, we revised it to “year” throughout.

Page 6

Line 6-8: The response rate is a study result and should be moved to the findings section. The total sample, or questionnaires distributed should also be stated, and not left to the reader to work out himself from the response rate as a percentage.

: We revised it and described into the sample and result sections.

Line 18-21: 'Researchers provided information about the purpose and aim of the study' please ensure that if you are referring to an activity undertaken by researchers here, this is consistent with your use of the term researcher throughout the paper. You use 'investigator' in the same paragraph, which appears to be interchangeable with the term 'researcher'. This needs to be consistent in meaning also throughout.
In fact, researchers and investigators were different people. To improve readability, we changed “investigator” into “survey assistant”.

Line 28: Again, I ask whether the authors mean 'lecturers' rather than 'professors'. Their response to my query the first time was 'in this sentence, professor means researchers. We are professors.' This did not answer my question. Professor has a different meaning to internationally- so I would suggest here that the authors mean lecturer and change the text.

Likewise, we replaced “professors” into “lecturers” and “researchers”

Line 43-45- Please provide a reference for the Bioethics and Safety Act.

We added the reference.

Please describe how the study information was provided to prospective participants, and include hard copies of information sheets as appendices.

Based on your comment, we revised that paragraph. And a sample sheet is attached as a supplementary material for reviewer. I don't know if this is appropriate as appendices in the article.

Please describe how the researcher approached prospective participants e.g. by email, in person.

We added that explain “We posted a recruitment notice in the school to attract prospective participants.”

Page 7

Line 7: Delete 'the researcher, who is'…..

We deleted it.

Page 14

Lines 26-31: As this was the first study to use K-SANICS, the following sentence doesn't really make sense 'studies to validate the effectiveness of the K-SANICS have not been conducted sufficiently.' It would be better worded as 'The effectiveness of K-SANICS is yet to be evaluated, and should be the basis for future research.'

Thank you for your meaningful comments. We revised the sentence as your comments.
Line 13-14; Replace 'under' with 'across'

: Based on your comment, we replaced “under” with “across”

◊[Line 13-14] The scale comprises 30 items across six factors…

Lines 23-28: The following sentence is an assumption, and should be tempered so as not to present a belief as a fact; 'Furthermore, improving the nursing informatics competency of students will be a great contribution to the quality of care they provide to their patients when they become nurses.' E.g. 'improving the nursing informatics competency of students will contribute to the skills necessary to deliver good quality care as registered nurses'

: We revised the sentence according to the comments.

◊[Lines 23-28] Furthermore, improving the nursing informatics competency of students will contribute to them having the skills necessary to deliver good quality care as registered nurses.

[Reviewer 3]

After reading your work and considering your sample, it is not completely clear why the Korean version of SANICS should be applied in clinical settings (see your study aims). Maybe you intended 'nursing field'? or 'nursing educational field'?  

: We intended both of them, so we revised the aim and explained the application methods in the conclusion section.

I agree with you when you stated 'This is a methodological study to verify the reliability and validity of the K-SANICS' but your study is 'multicentric cross-sectional' in nature. I think you should highlight this.

: Based on your comment, we revised “study design”

◊ The design of this study was a methodological approach to culturally adapt and evaluate the Korean version SANICS with a multi-regional cross-sectional survey.

Page 15 line 4-9 I think there are some redundant information (see informed consent)

: We agree with your opinion. So, we revised the sentences.
Table 1. please check the use of decimals.

: We checked the use of decimals.

Page 17 line 35. Please use appropriate symbol for Chi-square test.

: We changed it.

I'm not sure that your subgroup analysis really explores the criterion validity since this latter is an estimate of the extent to which a measure agrees with a gold standard. I think that you can report 'factors associated' instead 'criterion validity' or better specify using adequate references for your data analysis technique to explore criterion validity.

: We changed the term the “criterion validity” to construct validity as a “contrasted groups approach.” We corrected the sentences in the method, results, and discussion sections and the abstract with red highlighting.

As you stated in discussion section (see '…exposure to nursing informatics in the course can affect the attitudes and knowledge of nursing students…) some scores could vary during the nursing student's pathway. So, I think that the lack of stability test for K-SANICS (test-retest) is a study limit you should highlight.

: We added the suggestion in the limitations section.

Finally, what do you think about confirmative factor analysis for future research in Korea?

: If we have a chance, we want to try confirmative factor analysis.

[Reviewer 4]
i) Sample and sampling:

- 254 students were recruited from three Universities: How did the authors decide on the sample size? In other words, the formula for determination of sample is not described. In addition, the selection of the three Universities is not clear. Three Universities out of how many? The sample of 254 is what proportion of the total nursing students in year 3 and 4 in all the three universities? What was the number of students per University? Was it proportional to the total number per university?
Based on your comment, we revised “setting and sample”

(We recruited from four universities. We previously wrote the wrong number of universities in some parts. The number of students (prospective participants) was allocated based on the number of third- and fourth-year students. In the end, however, students involvement was voluntary and did not exactly match the proportion of students by school. But the text of the manuscript is so redundant that we did not record it all.)

-Exclusion criteria: the authors wrote that those who did not provide consent were excluded; this is not an exclusion criteria. This should be an attribute of the students which would affect the results.

Based on your comment, we deleted the sentence.

ii) Participation gift after completion of questionnaire: Please explain what this gift was to ascertain whether it was appropriate.

: We gave stationery (ballpoint pens and highlighters) to the participants. The adequacy of the gift was approved by the IRB.

ii) Pre-testing: The authors mention that the questionnaire was tested on 15 students but they don't mention from whether the students were from one of the study universities or another one

: We revised the sentence based on your comment.

◊ The preliminary K-SANICS was pilot-tested with a sample of 15 nursing students from one of the study universities,

iii) Data collection: it is mentioned that the students who consented were given questionnaires to fill and instructed to put the filled questionnaires in a box in the classroom. Were all students in one university put in one classroom and left to fill the questionnaires at the same time? How did the researchers ensure that students did not discuss the questions and answers since they were left alone?

: Thank you for your valuable comments.

We explained the purpose of the study and what the participants should do. The choice was up to the students. However, we expected students to participate in the survey in a non-suppressive and free atmosphere.