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:

[Reviewer 2]

The authors have diligently replied to earlier comments and the text is much improved. I suggested that the authors include the information sheet as an appendix. They have included in their revised submission as a supplementary document. The editors will decide whether this should be included as an appendix. If it is, it should be provided in English, as the current copy is in Korean, so the content cannot be assessed.

: Thank you for your advice. We would like to give our opinion. The information sheet is intended for Korean research participants. We don’t think it is necessary to translate it into English as an appendix. We received IRB approval for the information sheet, and there was nothing special in it. It was just a general guide for participants. However, if the editor decides to attach it as an appendix, we will submit it.

1. Page 3

Line 26: nursing informatics competency, which refers to the ability to perform nursing tasks and roles related to informatics activities, is one of the fundamental competencies demanded of nurses
Please delete 'nursing' before informatics, as nursing informatics as a competency is not likely to be demanded of any profession other than nursing, so the word is superfluous

: (Page 3, Line 26) Based on your comment, we deleted “nursing.”

2. Page 3 Lines 33-35:

The sentence Developing curricula and continuous training in the field are essential to improve nurses” informatics competencies repeats the phrase used twice in the preceding sentence. I suggest either merging the two sentences or shortening the sentence to “This requires improvement though new curricula and continuous training in clinical settings.”

: (Page 3, Lines 33-35) Based on your comment, we revised the sentence.

3. Page 4 Lines 17-18- please indicate in which country the Quality and Safety Education for Nurses project took place

: (Page 4, Lines 17-18) We revised the sentence as follows.

◊ On the other hand, the Competencies in Pre-licensure Nursing Education, developed by the Quality and Safety Education for Nurses (QSEN) project in the United States,

4. Page 5-6

Recruitment of participants:

The sentence “Considering the appropriate sample size, questionnaires were distributed to 300 individuals” is followed by

“Participants were recruited through advertisements and approached by survey assistants. The assistants provided a hard copy with information about the purpose and aim of the study”
Please provide a description of the procedure for recruitment, including information on the content of the advertisements (as appendices), where they were placed, and whether the survey assistants contacted students who did not approach the study team first to express interest. If the students were contacted by the team in the first instance, please indicate clearly as to whether approval was obtained from the ethics committee for the study team to have the contact details of the students (e.g. the lecturers involved in the study were also involved in their education, had access to their personal details and had approval to use them for this purpose).

: (Pages 5-6) The hard copy and advertisement were also in Korean. So, if you need that as an appendix, we could translate the script into English. We will follow the decision of the editors. In order to help readers' understanding, we revised sentences in the “Setting and sample,” “Ethical consideration,” and “Data collection” sections.

5. Please also include information on the numbers of students who contacted the team to express interest, if this was a part of the process. If it was, how many of these were not contacted in order to get the sample size of 300?

: In total, 300 students participated in the study briefing and received an explanation of the study along with the questionnaire and met with one of the researchers. Among them, those who did not complete the written consent or questionnaire after hearing the explanation of the study were excluded, and the final data of 254 students were analyzed.

6. Page 14 Please introduce a separate sub-heading for “Limitations.”

Please sure that this section relates to limitations only, and does not combine ideas for future research. Currently the 4 limitations identified (of which only 3 seem valid) are followed by a sentence to say that the limitation could be rectified by future studies- this is not a good way in which to present an insightful critique of one’s own work.

: (Page 14, Line 4~) Thank for your valuable comments. Based on your comments, we added a separate sub-heading for “Limitations” and revised the contents.

7. Page 14 Lines 13-14: I'm not sure what is mean by evaluating the effectiveness of the measure. It is not an intervention, so evaluating the effectiveness is not an appropriate description. Accuracy and reliability of the measure and generalisability of the findings can be strengthened in future studies. If something different is meant here, please explain

: (Page 14, Line 4~) Thank for your valuable comments. Based on your comments, we rewrote the sentence as follows.
Second, as this was the first study to use K-SANICS, there is a lack of cumulative verification of the reliability and the validity of K-SANICS.

8. Page 14 Line 18: please rephrase this sentence “And the lack of a stability test for K-SANICS (test-retest) is a study limit” to for example “We have identified the lack of a stability test in the form of test-retest as the third limitation of our study.”

: Based on your suggestion, we rewrote the sentence.

9. Page 14 Line 42: The authors indicate that the measure has limitations “despite some limitations, the K-Sanics…” however the preceding section related to study limitations, not limitations of the measure. These are different. If the measure has limitations, please ensure that these are identified separately to the study limitations. If the authors mean that the study has limitations please rephrase e.g. “Despite the limitations of this study, we believe that the K-Sanics could be useful…”

: Based on your comments, we rewrote the sentence as follows.

Despite the limitations of this study, we believe that the K-SANICS could be useful in research as well as in the development of informatics curricula for nursing students.

10. Page 14 Lines 56-57 “With the changes in information technology in the healthcare system, nursing informatics competency has now become a fundamental ability demanded of nurses. This repeats almost verbatim the Line 26 on page 3. If the authors retain the sentence, please ensure that they refer to the sentence that is used earlier on, so that it doesn’t seem to the reader that they have simply forgotten it and are repeating themselves by mistake. If retained, please subject to the same modification as in my earlier comment.

It would be preferable to delete the sentence however.

: (Page 14, Lines 56-57) Based on your comments, we deleted the sentence.

11. Similarly the next sentence “The Korean version of SANICS comprises 30 items across six factors and is a reliable and valid tool for nursing students” contributes nothing to the conclusion as it is a repetition of earlier text.
Based on your comments, we deleted the sentence.

[Reviewer 3]

After reading the revised manuscript, I think it is globally improved and contains more detailed informations. Authors satisfied all my suggested revisions. However, to be consistent to the other tables, I suggest using 2 decimals in table one.

: Thank you for your comment. All values in the table are arranged in 2 decimals.

[Reviewer 4]

I am satisfied with the responses to reviewers’ first comments

: Thank you so much.

[Reviewer 5]

1. Cronbach's alpha has been criticized for its wrong use as a measure for internal reliability (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2792363/). In addition, a value of 0.3, is not an acceptable value. Please revise the paper accordingly.

: We deleted that sentence on page 8.

2. When reliability is reported, the referenced table is 2, but Cronbach's is mentioned in table 3.

: Actually, we used Cronbach’s twice for deferent aim, one for the reliability of the scale in table 2, and the other for the factors in the table 3.

3. Regarding the explanation about the wireless communications, the authors should mainly consider the 10 years of difference between the published study in the US, and the current study.
4. Question 3 seems to be misunderstood. The original says "to include but not limited to" that to my understanding means that the concept of integrity of and access to information should at least include confidentiality, legal, ethical and security issues, but also other issues (not limited to those mentioned). The translation mentions to not be restricted by them in future clinical services. I believe that the original is correct, and nurses should be limited by them in future clinical services.

5. Questions 4 and 5 seem also to have a completely different meaning from the original.

: Thank you for valuable comments. This tool is for nursing students. However, there is no suitable tool for measuring a student's information capacity, and in particular, the tool developed for nurses was used to reflect the information capacity required in the clinical field. The items you mentioned were partially modified to suit the student because the original items were applicable to nurses, but not appropriate for nursing students. Based on SANICS, the original tool, but with some items revised, we conducted exploratory factor analysis rather than confirmatory factor analysis.

6. Due to the deviation of questions 3, 4 and 5, the quality of the translation or the back-translation is unclear. Since the deviation might be due to inaccurate reporting of the English questions in the original paper, I would like to see the questionnaire you have received from the authors of the original paper.

: We received permission from Dr. Yoon to use the tool and used the items of the tool in the following literature.


7. Question 27 is now: "I do not think that a nurse has to be a computer program for the effective use of the computer." Maybe it was intended to state "…to be a computer programmer…."

: You're right. We corrected the wrong expression.