Author's response to reviews

Title: Nursing students motivation toward their studies - a survey study

Authors:

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Author's response to reviews: see over
Author's response to reviews
Title: Nursing students motivation toward their studies - a survey study

Author: Kerstin Nilsson, Margaretha Warrén Stomberg

Thank you for the re-review of the manuscript above. We really understand the importance of the statements of reliability and therefore we consulted a statistician to truly work through your comments. The answer is given as follows: We answer the reviewer Lorna K Suen and Willy Lens in combination. Changes are made in the manuscript according to the reviewer’s comments and they are all marked with bold in the article text.

Reviewer's report:
Reviewer: Lorna K Suen
One minor thing is that it would be helpful if the authors could elaborate a bit more how the 'reliability of this instrument accurately reflects the true score of the attribute investigated' (under 'Statistics and Analysis').

Reviewer: Willy Lens
- the question regarding the reliability (internal consistency: Cronbach's alpha) is still not answered.

The authors answer:
After consultation of statistician Anders Odén, professor in biostatistics we respond to the reviewers concerning reliability. Cronbach’s alpha is a quantity suggested to summarize the correlation between all items (or weighted items) in a questionnaire or a subset of items. The interpretation of the quantity is vague and thus the value of it is limited. In spite of that the use is still common in some type of investigations. However the questionnaire has to comprise more than one item to make the use of Cronbach’s alpha possible. So besides the resistance of our adviser towards this quantity it is in this case impossible to apply the quantity, since there is only one question with a numerical answer.

A numeric rating scale was chosen as the main question to indicate the motivation score as such a scale is a commonly accepted instrument for assessment of experience of a phenomenon. This statement is supported by the following references also talking about scoring experiences: Ferraz MB, Quaresma MR, Aquino LR, Atra E, Tugwell P, Goldsmith CH. Reliability of pain scales in the assessment of literate and illiterate patients with rheumatoid arthritis. J Rheumatol. 1990 Aug;17(8):1022-4. Williamson A, Hoggart B. Pain: a review of three commonly used pain rating scales. J Clin Nurs. 2005 Aug;14(7):798-804. Review.
The second question was a qualitative open-ended one and the answers in this question were categorized.

The following changes are made in the text: On page 4 in the following sentence “The main assignment was to self-grade questions about their own assessment of their motivation on a scale graded from 0 to 10…” questions is changed to question as it was just one self rate question asked.

Reviewer's report:
Reviewer: Willy Lens
- The differences shown in Figure 1 are still not tested statistically. They do indeed "look" "not significant" (as said on p. 9) but why do the others refuse to test them?
  The authors answer: The following statistical test has been made and this sentence is added in the method section: To compare the graded motivation between the semesters the non parametric Kruskal-Wallis test was used (p 5). And the following sentence is added in the result: The gradation of the students’ motivation was not similar during the 6 semesters (p 0.006). During the 1st, 2nd and 3rd semester the mean was 6.7; 6.7; 6.5 respectively, (fig 1) and during the 4th, 5th and 6th semester it was 7.4, 5.7; 7.0 respectively (fig 1) (p 7).

Reviewer's report:
Reviewer: Willy Lens
- on average & NOT in mean see p. 7; were "inductive" analyzed (why not "inductively")
  The authors answer: The term inductive is changed to inductively (p 5)

Reviewer's report:
Reviewer: Willy Lens
- I still do not know if the gender difference (5.8 vs. 6.8 see p. 11) was significant. The authors react by saying that 18% of the participants were male and 82% female and that they think that a statistical test is inappropriate for that reason. I disagree and if they really mean what they say they then better do not write at all about gender differences (which I would regret).
  The authors answer: The following statistical test has been made and this sentence is added in the method section: “Mantel’s test was applied for the over all comparison between sexes” (p 5). The following changes are made in the text in the result: When using Mantel’s test with semester as the background variable we found significant differences, p 0.0007 between sexes where female were more motivated (p 9).

We hope you will find these answers and alterations satisfactory and that the manuscript can now be accepted in BMC Nursing.

Sincerely yours
Kerstin Nilsson on behalf of the authors