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
Thank you for the review of the manuscript above. The answer is given as follows: First we answer the reviewer Zane R Wolf, than Lorna K Suen and finally Willy Lens. Changes are made in the manuscript according to the reviewer’s comments. All changes are marked with bold in the article text.

Reviewer Zane R Wolf:
**Reviewer's report:**
1. … the introductory paragraph is awkward. The term, utility, needs to be described.  
   **Authors’ response:** We have made the following clarification marked with bold at page 1 versus page 2:  
   - This paper focuses on Swedish nursing students’ **own assessment of their** motivation towards their studies….  
   - This study found that the students could be motivated by the present **studies leading to** the future benefits as **registered nurses** and that both the present and the future might be regulated internally or externally.

Reviewer's report:
2. … reliability and validity statistics for the scale on motivation would improve the section (method).  
   **Authors’ response:** We have made the following clarification marked with bold.  
   - **Page 5:** The reliability of this instrument **accurate reflects the true score of** the attribute investigated.  
   - **Page 6:** The following sentence ‘I am uncertain if I have all the knowledge required in the profession.’ illustrates an answer in the category ‘The certificate and the profession frightened the student’.  
   To avoid influence of the researchers’ pre-conceptions of the issue in question, awareness of this risk followed the research process. During analysing phase the analysis were performed separately by the two researchers and thereafter compared. The level of agreement between the two co-examiners was about 95 % and points of disagreement were resolved through discussion.

4. Ethics: need to specify who approved the study of the student group.  
   **Authors’ response:** The research has been performed according to correct ethical practice and according to the Swedish Legislations, which means no ethical
approval from Ethical Committee is needed for this kind of research. The section Ethics (page 6) is expanded with the following sentence:

Together with data collection the students were informed and gave their written consent.

Reviewer's report:
Needs some language corrections before being published

Authors’ response:
Corrections have been made by a professional British reviewer/translator throughout the manuscript.

Reviewer Lorna K Suen:

Reviewer's report:
The implication of a low response rate (53%) was not discussed. Did it reflect the usual attendance rate of the classes? Any relationship of this turn up rate with the overall motivation of students?

Authors’ response: We would like to clarify the following at page 5:
In each term 100 students were enrolled, and in mean, 53 % attended the actual lectures. This figure of 53 % is a common one for attendance at Swedish university lectures since participation is not obligatory. None of the students invited to participate in the study declined.

Reviewer's report:
Some discussions of the findings were not well-justified: e.g.
- what was the relationship between ‘high score in semester four’ and ‘the content in the courses in this actual nursing school focusing on clinical skills’ (p.8)? Also, does it mean that other semesters were not focused on clinical skills?

Authors’ response: We would like to clarify the following marked with bold at page 9:
The relatively high score in term 4 might be explained by the content of the courses in this actual nursing school focusing on clinical skills, compared to other terms, which are more theoretical. During training in this term, the students most likely get a new insight into their future occupation as registered nurses. This clinic laboratory training situation was found stimulating, and could be compared to vital learning experience in the clinical area [18]. The relatively low graded score for semester 5 can probably be explained by the theoretical content of semester 5, in contrast to semester 4, and simultaneously to a consciousness of the future professional demands. It might also be a result of tiredness of the theoretical studying situation and a longing to become a registered nurse.

Reviewer's report:
- why did ‘a consciousness of the future professional demand when the students enter their last clinical course and do their final degree paper’ be used to explain the ‘low graded score for semester five’?
Authors’ response: See answer above and the clarification at page 9. 
Furthermore, discussions concerning the final examination thesis had been held at the university; voices had been raised about the examination, which might have influenced some students and reduced their motivation.

Reviewer's report:
- low motivation score of the male nursing students (why not females) might have been influenced by wrong career choice. Any specific reasons?
   Authors’ response: The following clarification is mad at page 11.
   Jacobsson [22] found that female students had higher intrinsic motivation than male students and that female students exert themselves more, as well as having a more thought-out strategy for their studies. This might explain the gender differences in our findings.

Reviewer's report:
- Be more specific what kind of ‘tutorial support’ should be given to students to increase motivation (p.11).
   Authors’ response: The following clarification is made at page 12.
   … for example, by promoting flexibility in planning personal study programs.

Reviewer's report:
Limitations of study not addressed (e.g. only one motivation scale used, low response rate, using a different cohorts for comparison). Suggest to put under a separate subheading such as ‘Limitations and recommendations for future directions’.

Authors’ response: A new section ‘Limitations’ is inserted on page 12:
Using a rating scale might be seen as a limitation as it only grades the students’ opinions about their motivation. Another type of motivation instrument would have measured their motivation in more detail. The limitation of comparing students from different semesters was compensated by students attaining the same curriculum, studying at the same university, and no organizational changes were made during the study period.

The response rate was high. All students how were invited participated. What seems to be a low response rate is explained in the method section ‘Participants’:
In each term 100 students were enrolled, and in mean, 53 % attended the actual lectures. This figure of 53 % is a common one for attendance at Swedish university lectures, since participation is not obligatory. None of the students invited to participate in the study declined.

Reviewer's report:
The differences in scoring among students in different semesters were compared using simple descriptive statistics (mean value). Have the authors consider other factors that may affect the scoring during analyses, especially when it was not the same cohort of students e.g. change in curriculum, teaching staff etc.
Authors’ response:
The limitation of comparing students from different semesters was compensated by students attaining the same curriculum, studying at the same university, and no organizational changes were made during the study period.

Reviewer’s report:
Inconsistent format of referencing - both APA (e.g. p.10) and Vancouver style were appeared (e.g. the rest of paper).
Authors’ response: Using APA was a mistake and is corrected.

Reviewer's report:
Using only one motivation scale could not fully reflect the students’ condition. May consider to use more well-established quantitative scales in future studies e.g. self-efficacy, life situation, learning attitudes, academic performance such as grade point average.
Authors’ response: The rational for using is a rating scale to measure motivation is clarified at page 4:
This rating scale has labeled end points, which specify the opposite extremes of a continuum. A rating scale with odd numbers is recommended to allow for a neutral midpoint, which is why 11 points were chosen in this study.

Reviewer's report:
Needs some language corrections before being published
Authors’ response: See answer above.

Reviewer Willy Lens:
Reviewer's report
… why is the approach-avoidance dimension in Achievement Goal Theory not discussed.
Authors’ response: The following clarification on page 2 is made:
…in contrast to performance avoidance goals (avoidance of failure)

Reviewer's report
A major problem with this study is that the authors do not discuss their measure of motivation at all (which type of motivation was measured? What is the reliability or internal consistency of the questionnaire?
Authors’ response: See answer above.

Reviewer's report
Did the authors check the coding reliability of the content analysis of the answers to the open-ended question?
Authors’ response: See answer above (method).
No indication is given about the number of participants for each of the six measurement moments; How may students participated in each of the six semesters? If this number is high enough I would discuss these data separately (repeated measur).

Authors’ response: See answer above (method).

Reviewer's report
No information is given about the statistical technique used to test differences nor about the results of the tests (t or F and p values). Why only an overal mean score for men (5.8) and women (6.8) and why is this difference not tested? In almost all studies that I know girls score higher than boys, so this finding is not unusual. I would look for gender difference in each semester.

Authors’ response: This was a descriptive study calculating for trends in motivation score measured in different semesters. No power calculation was made before the study why no further statistical analyzes was appropriate to do. The gender difference among the participants was 18 % vs 82 % why a statistical test not was found appropriate.

Reviewer's report
I wonder if a mean age of 27 for nursing students is normal in Sweden.

Authors’ response: Yes that is not unusual. See clarification at page 7:
(a normal mean age for Swedish nursing students)

Reviewer's report
Is it correct - as said on p. 3 - that it was found that only 8 out of 76 students dropped-out? How many students dropped out in this sample?

Authors’ response: Yes, it is correct that 8 of 76 students dropped out in that study. In this study it is impossible to talk about drop outs as the measure takes place at a single point.

Reviewer's report
I like the data in Tables 2 & 3 but i would do much more if I would know the content of the items to measure the strength of motivation.

Authors’ response: See answer above.

Reviewer's report
Not suitable for publication unless extensively edited.

Authors’ response: an example of answer is given at page 5 to illustrate the base for categories. Please see above.

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

Sincerely yours
Kerstin Nilsson on behalf of the authors