Title: Bioscience learning in nursing: A cross-sectional survey of beginning nursing students in Norway

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Author’s response to reviews:

Point-by point comments
Revisions made
We would like to thank the reviewers for very helpful feedback!

The manuscript title revised: “Bioscience learning in nursing: Nursing student experiences in anatomy and physiology courses”

Addressing the Reviewer 1 report:
The paper would benefit from another edit by a native English-speaking scholar as the flow of sentences could be improved and the meanings could be made clearer.
Revision: We have revised the paper in line with all the comments from the reviewers and proofreading is done as purposed.

Section 2.2, Methods: I suggest this is a convenience sample of students rather than a random sample? - As participants are not randomly selected from all the enrolled students?
Revision: A convenience sample was used and corrected in the manuscript.

Section 2.2: All sentences should commence with a word and not with a numerical figure.
Revision: This is corrected

Section 2.4 Consent- please remove line 19-27 as consent details are not required because the project was granted exemption.
Revision: Line 19-27 is removed

Page 4 line 53: research questions: "What were students' motivation" is not explicitly examined- (ie reasons for motivation) you asked them what was their level of motivation? So the research question becomes: What were students' levels of motivation and their exam performance when studying A&P? - or even better, What were students' levels of motivation when studying A&P and did this relate to their exam performance?
Revision: The RQ is revised to “Did student motivation relate to exam performance ?”

Section 4.4 Line 4: suggest 'approximately one-third' would read better … Please revise this section regarding convenience sampling. Suggest describe limitations of a self-reported survey- is this liable to
bias? Is the response accurate? Line 18: "based on their tests of validity and reliability" is not accurate or related to your survey because you completely altered their surveys? But you could say it was based on previously validated surveys- this should sit in the methods section not in the limitations.

Revision: The section is revised regarding sampling, validity and possible biases

Conclusion line 36: remove "15-minute" as not relevant to conclusion. Please include a sentence about what you found in your results?
Revision: The conclusion is revised in line with the comment

Why is this a pilot study- I do not think it necessary to qualify the study in this way?? it is a study of development and administration of your new tool with a student sample.

Revision: Revision is done

ABSTRACT
Line 20 not quite right you are predicting the outcome? Suggest: Their motivation, learning performance and the approaches to teaching may influence the learning process.
Line 24 There is a better word than 'get'. Perhaps: a descriptive survey was conducted with first-year nursing students at a university in Central Norway to explore their motivation, learning performance and perceptions of teaching approaches used in an anatomy and physiology course?
Line 32: be specific: The study provided understanding of nursing students' motivation, exam performance and perceptions of teaching approaches. Ninety-one percent of participants passed the course. The majority (give %) reported that classroom lecture was the most efficient teaching method and was generally appreciated. Out of school self-study time was significantly associated with A&P exam grades (give p-value).
Line 45 grammar not quite right: suggest- This pilot study provides relevant information about students' motivation, learning performance studying A&P, and perceptions of teaching approaches and course content. [describe what you found/p=value]. The new survey tool offers potential for further research on the quality of delivery of anatomy and physiology units.

Revision: The language is improved. The results are clarified.

Keywords. Suggest ensure that at least some of your keywords relate to MeSH terms: Therefore it should read: students, nursing; see NLM website
Revision: Revised to” Student, Nursing, Learning, Motivation, Instructional methods, Quality improvement”

Funding: ??no specific grant was applied- see journal guideline
No Revision: There was no specific grant

Addressing the Reviewer 2 report:
Sampling : It was mentioned that the sample was randomly sampled - however it was not clear how the random sampling was done ie how was it that 93 students out of 140 students met on the selected day (page 6 line 39 to 40) what happened to the rest of the 47 students ? why was nearly 1/3 of the 93 students did not complete the questionnaire ? Sampling size calculation was not clear.
Revision: A convenience sample was used and corrected. The sampling method is clarified.

Questionnaire was developed based on two sources - however was it validated before it was used in this study? how reliable is the instrument ? There was only one question (Question 6) on motivation and to base the findings on one question in the questionnaire made the findings doubtful
Revision: The questionnaire was developed for this study based on two previously-validated surveys with weaknesses it brings. With regard to motivation, the form also measured independent A&P study per week.

Results - too simplistic and did not really generate much useful information as most of the questionnaire are not really answering the study objectives.

Revision: We apologize for design weakness.

Conclusions and recommendations - not critical nor conclusive due to the methodological flaws

Revision: The conclusion emphasizes findings and points to the need of questionnaire improvement and research with stronger design.

If improvements to the English language within your manuscript have been requested, you should have your manuscript reviewed by someone who is fluent in English.

Revision: A proofreading is done.