

Title: Effectiveness of the combination of workshops and flipped classroom model to improve tube fixation training for nursing students: a prospective study

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Response to Reviewers' comments

Dear Editor,

Thank you for your response regarding our manuscript entitled “Effectiveness of the combination of the workshop and flipped classroom model to improve tube fixation training of nursing students: a prospective study.” We appreciate your careful consideration of our manuscript and overall positive feedback. As recommended, the manuscript has been thoroughly checked by native English editors, and we have carefully considered and incorporated the reviewers’ suggestions and comments into the final manuscript. Detailed point-by-point responses to the reviewers’ comments have been provided below. Our manuscript now provides the complete context for our research that we believe will be of interest to your readership.

We hope that you will find our revised paper suitable for publication in your esteemed journal. We look forward to hearing from you.

Yours sincerely,

Reviewer 1

Comment 1: 1 Title. Does the title reflect the main subject/hypothesis of the manuscript? The title does reflect the main subject of the manuscript; however, it is difficult to read.

- I suggest at title along those lines: “Improving the teaching of tube fixation for nursing students using a combination of workshop and flipped classroom: a prospective study”

Response: Thank you for your comment. We have revised the title as per your suggestion.

Comment 2: 2 Abstract. Does the abstract summarize and reflect the work described in the manuscript? The abstract summarizes and reflects the work described in the manuscript

Response: Thank you for your comment.

Comment 3: 3 Key words. Do the key words reflect the focus of the manuscript? No keywords were mentioned in the manuscript

Response: Thank you for your comment. We have added appropriate keywords in the manuscript.

Comment 4: 4 Background. Does the manuscript adequately describe the background, present status and significance of the study? The introduction section is clean but very concise.

- I recommend expanding the background a little to present the previous studies that were carried out using the workshop method alone and other studies that used flipped classroom and present the results they found (it was done but very briefly). Then, the significance of combining the two teaching methods, which leads to the aim of this study.

Response: We have expanded the background as suggested, as below.

Trainers should stimulate learners' interest from multiple perspectives. The training effect largely depends on nurses' interest and participation. Appropriate training methods can have a positive effect on nurses' participation in training. Yang Mei et al. [1] implemented flipped classroom teaching in nursing management, and 96.8% of the students believed that it could promote learning and recognized this teaching mode. Zhijuan et al. [2] applied flipped classroom model in geriatric nursing courses, and the results showed that there was no significant difference in the scores of comprehension and memory questions between groups, but the case analysis ability and autonomous learning ability were significantly improved. Ping [3] et al. found that implementing the flipped classroom mode in nursing teaching in higher vocational colleges can improve students' autonomous learning ability, and their theoretical and operational assessment scores are significantly improved. (page 4, lines 22-30 and page 5, lines 1-8)

References:

- [1] Yi Yupin, Ding Fu, Research on the application of workshop in nurses' standardized pipe fixation training [J]. China Nursing Education, 2018, 15(6):5
- [2] Yang Mei, Zhang June, Gao Lingling, et al. Application and effect of flipped classroom in nursing management teaching [J]. Chinese Nursing Education, 2017, 14(2):4
- [3] Liu Ping, Xue Mei, Ma Liandi, et al. The influence of flipped classroom teaching on the autonomous learning ability of nursing students in Vocational colleges [J]. Chinese Nursing Education, 2016(2):109-112.

Comment 5: 5 Methods. Does the manuscript describe methods (e.g., experiments, data analysis, surveys, and clinical trials, etc.) in adequate detail? The method section lacks clarity.

- In “Study design and subjects” please fix the grammar of this sentence: “all nurses were in their first year of working as nurses work for the first year, and had no previous nursing work”

Response: Thank you for your comment. All trainees were newly graduated nurses and were in their first year of working as registered nurses; they had no previous work experience or tube-related training. We have revised the sentence accordingly to clearly convey our intended meaning and eliminate ambiguity (page 5, lines 25-27).

Comment 6: • In the entire document, please use “control: and “experimental” group instead of “new nurses of 2018 and nurses of 2019”.

Response: Thank you for your comment. We have made the revisions throughout the manuscript per your suggestion.

Comment 7: • In “contents and requirements of pre-class training” section, please check the tense of the verbs. Present tense was used instead of the past.

Response: Thank you for your comment. We have rectified this grammatical error. (page 6, lines 17-28 and page 7, lines 1-14)

Comment 8: • What is the language used to teach the classes? If it is English, I suggest adding an example of the activities, assessment, and evaluation rubric that were used

Response: Thank you for your comment. The language used to teach the classes was Chinese.

Comment 9: • The self-designed questionnaire should be presented in the study or at least couple of items so the reader can have a better idea.

Response: Thank you for your comment. As per your suggestion, we have incorporated this data in the Methods.

Comment 10: • Please present whether the self-designed questionnaire is valid and reliable. Statistics about its reliability should appear in the manuscript.

Response: Thank you for your comment. Cronbach's α is 0.933, which indicates that reliability is good; however, for validity, there was no other suitable scale to compare. We intend to explore the validity in the future studies.

Comment 11: • Students have prepared the materials before coming to class. How did the authors check whether this was done by all students?

Response: Thank you for your comment. The teachers personally checked all the materials prepared by the students and ensured that all materials are ready.

Comment 12: • Ethical consideration section should be added where the authors should explain about how the data was handled, how the confidentiality of students was maintained and whether students had the right to withdraw from the study without being penalized.

Response: Thank you for your comment. Student evaluations were submitted anonymously, were processed by researchers, and are confidential. Participants had the right to withdraw from the study without penalty.

Comment 13: 6 Results. Are the research objectives achieved by the experiments used in this study? What are the contributions that the study has made for research progress in this field? The research objectives are achieved by the experiments and presented clearly in the result section. This results of this study show that the combination of a workshop training with flipped classroom improve tube fixation skills in nursing students.

• In "Characteristics of the nurses" and Table 1, percentage should be presented along with the "n".

Response: Thank you for your comment. We have added the percentages as per your suggestion.

Comment 14: • Please present the statistical results correctly so the reader is able to differentiate between which analyses were carried out using t-test, chi-square, and Mann-Whitney U-test.

Response: Thank you for your comment. We have added the appropriate information.

Comment 15: 7 Discussion. Does the manuscript interpret the findings adequately and appropriately, highlighting the key points concisely, clearly and logically? Are the findings and their applicability/relevance to the literature stated in a clear and definite manner? Is the discussion accurate and does it discuss the paper's scientific significance and/or relevance to clinical practice sufficiently?

• Comments from the nurses were mentioned in the discussion. I believe these qualitative comments should be included in the result section.

Response: Thank you for your comment. The nurses' opinions were collected by talking to them during the on-site training. If needed, we can include these comments in the Results section. If the reviewer insists on doing so, only this part of the content can be reflected. Please advise.

Comment 16: 8 Illustrations and tables. Are the figures, diagrams and tables sufficient, good quality and appropriately illustrative of the paper contents? Do figures require labeling with arrows, asterisks etc., better legends? The figure and tables are good

Response: Thank you for your comment.

Comment 17: 9 Biostatistics. Does the manuscript meet the requirements of biostatistics? No

Response: Thank you for your comment.

Comment 18: 10 Units. Does the manuscript meet the requirements of use of SI units? Yes

Response: Thank you for your comment.

Comment 19: 11 References. Does the manuscript cite appropriately the latest, important and authoritative references in the introduction and discussion sections? Does the author self-cite, omit, incorrectly cite and/or over-cite references? References look good.

Response: Thank you for your comment.

Comment 20: 12 Quality of manuscript organization and presentation. Is the manuscript well, concisely and coherently organized and presented? Is the style, language and grammar accurate and appropriate? I recommend that the manuscript be checked by a Native English speaker because it is not easy to read.

Response: Thank you for your comment. We have availed of language services to correct grammar and readability.

Comment 21: 14 Ethics statements. For all manuscripts involving human studies and/or animal experiments, author(s) must submit the related formal ethics documents that were reviewed and approved by their local ethical review committee. Did the manuscript meet the requirements of ethics? The authors mention that the study was approved by the medical ethical committee. However, they don't mention in the main manuscript about the ethical considerations that were followed in order to ensure the confidentiality of the data. Please see my comments to the method section.

Response: Thank you for your comment. Student evaluations were submitted anonymously, processed by researchers, and are confidential. Participants had the right to withdraw from the study without penalty.

Reviewer 2

***Comment 1:** The article is useful for readers to understand how flipped classroom is adopted in nurse education which may not have many research evidence to examine its effectiveness. However, the researchers may want to write the recommendations and limitations.*

Response: Thank you for your comment. We have elaborated on the limitations as per your suggestion.

***Comment 2:** Please also make good use of teachers' observation and students' conversations to triangulate the quantitative results.*

Response: Thank you for your comment. This is a limitation of our study. There is no observation record of teachers, and the supervisor evaluation of students is not systematic. Only information obtained by talking with individual nurses on the training site is available. We have added this limitation in the Discussion.

***Comment 3:** Do students have any comments on perceiving the flip class mode?*

Response: Thank you for your comment. Students believe that flipped classrooms change the roles of teachers and students, and students become active learners. They need to spend a lot of time preparing before class and report their self-study achievements in class. How to help students allocate their learning time more reasonably and arrange the content of class report more reasonably becomes the focus of attention in the next step.

***Comment 4:** Some sentences are lengthy such as The workshop combined with the flipped classroom training mode is in line with the development of modern informatization, which is helpful to encourage nurses to become the main body of learning and to learn actively, and to ensure the integration of theory with practice in the training courses, so as to achieve the best training effect. The researchers may want to polish the English and grammar mistakes.*

Response: Thank you for your comment. We have edited the manuscript for language and grammar.

Science editor

***Comment 1:** The methodology section is stretched out, you can embed tables for data of scoring and assessment.*

Response: Thank you for your comment. We have revised this section to only present relevant information.

***Comment 2:** Scoring means non-parametric test, means, and standard deviation signify parametrically.*

Response: Thank you for your comment. In our study, all scoring indicates normal distribution and parametric test was used.

***Comment 3:** Native speakers or company editing services are recommended for better English editing and typos errors.*

Response: Thank you for your comment. Our manuscript has been professionally edited by a native English editor for language and grammar.

Company editor-in-chief

***Comment 1:** I have reviewed the Peer-Review Report, the full text of the manuscript, and the relevant ethics documents, all of which have met the basic publishing requirements of the World Journal of Clinical Cases, and the manuscript is conditionally accepted. I have sent the manuscript to the author(s) for its revision according to the Peer-Review Report, Editorial Office's comments and the Criteria for Manuscript Revision by Authors. However, the quality of the English language of the manuscript does not meet the requirements of the journal. Before final acceptance, the author(s) must provide the English Language Certificate issued by a professional English language editing company. Please visit the following website for the*

professional English language editing companies we recommend:

<https://www.wjgnet.com/bpg/gerinfo/240>.

Response: Thank you for your comment. Our manuscript has been professionally edited by a native English editor for language and grammar.

***Comment 2:** Please provide the original figure documents. Please prepare and arrange the figures using PowerPoint to ensure that all graphs or arrows or text portions can be reprocessed by the editor. Authors are required to provide standard three-line tables, that is, only the top line, bottom line, and column line are displayed, while other table lines are hidden. The contents of each cell in the table should conform to the editing specifications, and the lines of each row or column of the table should be aligned. Do not use carriage returns or spaces to replace lines or vertical lines and do not segment cell content.*

Response: Thank you for your comment. Please note that we will provide these data during submission.