Author’s response to reviews

Title: Do demographic factors and a health-promoting lifestyle influence the self-rated health of college nursing students?

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Version: 2 Date: 03 Oct 2018

Author’s response to reviews:

Dear Dr. Hsieh,

Thank you very much for your comments. Your comments were seriously considered with a point-by-point response. Please note that changes were highlighted in red for the first revision and blue for second revision.

Editor Comments

Abstract:

1. The aims are not clear to the readers. Please revise as following and move them to line 24 of page 2. “The aims of this study were to compare the difference in self-rate health and health promotion lifestyle profile between senior and junior nursing students, describe correlations between self-rate health and health promotion lifestyle profile, and identify the predictors of self-rated health.”

Response: Thank you, revision completed.
2. Change the last sentence of data analysis as “Descriptive statistics, Mann-Whitney U test, Chi-square test, Fisher’s exact test, Spearman’s correlation, and ordinal logistic regression were used to analyze the data (p.2 line 43-44)”.

Response: Completed.

3. Revise the last sentence as “An ordinal logistic regression showed that those students with higher health management score (OR: 10128, 95% CI: 1.048-1.214) and who had experienced no family conflicts in the recent month than having family conflict (OR: 1.645, 95% CI: 1.017-2.661) were more likely to have higher self-rated health (p.2 line 55-58 & p.3 line 1-5)”.

Response: Completed.

Background:

1. Delete the last sentence of the first paragraph (p.6 line 15-18). Revise as “Therefore, this study was to compare the difference in self-rate health and health promotion lifestyle profile between senior and junior nursing students, describe correlations between self-rate health and health promotion lifestyle profile, and identify the predictors of self-rated health.

Response: Completed.

Methods:

1. Move second sentence of the study design to the second sentence of study setting and participants (p. 6, line 38-40).

Response: Completed.

2. Delete the subheading of sample size calculation (p.7 line 1).

Response: Completed.

3. The sample size estimation is not clear to the readers. How do you get the effect size of 0.34? Which statistics do authors use to calculate sample size? How do authors get the number of 274? This study has three aims using different statistics to analyze the data. The sample size estimation has to compare three aims and choose the largest number as the sample size.

Response: The primary outcome of the study was to compare lifestyles between the junior and senior nursing students. The other outcomes included describing the correlations between self-rated health and health promotion lifestyle profile, and identify the predictors of self-rated health.
We are unable to find any literatures related to the secondary outcomes for sample size determination. We therefore used the primary outcome to determine our sample size as suggested by literatures. The sample calculation was based on a previous study using the same instrument for data collection. For better accuracy, we re-calculate the effect size using the overall score, instead of choosing the subscale scores of Year 1 and Year 4 students in Mak et al’s study. The effect size is the mean difference between junior and senior year students/Standard Deviation, with power 80% and alpha 0.05. The effect size was 2.98. The total sample size was 356 participants with 178 from each group. The sample size calculation has been revised in the manuscript. I hope the above explains the details on sample size calculation in this study.

The post hoc test was computed using G-Power indicating the power achieved based on our number of participants (Power =0.75) The information has been included in the results and limitation of the study.

4.Delete the fourth and fifth sentences of instruments (A meta-analysis was used…their general health as excellent) (p.7 line37-45).

Response: Completed.

5.Delete the sentence of “the reliability of the single-item …for construct measurement) (p.7 line54-57). What is the internal consistency of health promotion lifestyle profile for this study (p.8). No description of Spearman correlation was used in this study (p.10 line 9).

Response: The sentence was deleted. Spearman rho’s correlation was added as suggested.

6.Use lower case for ordinal logistic regression (p.10 line 10, 15, & 17).

Response: Completed.

Did authors conduct ordinal logistic regression from bivariate to multivariate? How did the Table 4 come out?

Response: It is multivariate regression. The SPSS outputs were extracted to Microsoft Excel to work out Table 4.

7.Explain the formula of calculating the OR and 95% CI (p.10 line 19-20).

Response: The purpose of calculating the Odds Ratio and 95% Confidence Interval is to exponentiate the parameter estimates, the exact formula in Excel is “EXP(beta)” for Odds Ratio, “EXP(Lower Bound)” and “EXP(Upper Bound)” for calculation of 95% Confidence Interval. The above formula has been added in the manuscript for readers’ reference.
Results:

1. Delete “Please refer to Table 1 for details.” and add (Table 1) immediately after in the past month (p.10 line 51).

Response: Completed.

2. What is the Table 1 for? If the Table 1 was to examine the relationship between demographic characteristics and life habit and found three significant variables (clinical practicum, religion, and part-time job) between the both groups. Will authors use them as covariates for comparing health promotion lifestyle profile and identifying the predictors of self-rated health? (pp.24-25).

Response: The table not only informs the demographics of two groups of students but to examine whether significant differences existed between the groups. “Bivariate analyses using Pearson Chi-square test or a Fisher’s Exact test to examine the associations of the categorical variables between the two groups of students.”. The above phrase has been added into the manuscript for clarity.

We already expected that “Clinical practicum” would give significant results as one group is the junior students while another group is senior students.

In comparing health promoting lifestyle, the year of study did not treat as covariates as we need to investigate the lifestyles of these two groups of students, this is the primary objective of this study.

We used “number of hours of part-time work” instead of “Engaged in a part-time job” because the exact figure for part-time job might provide a useful model.

In general, the ordinal logistic regression included the relevant demographic variables into the model to examine the predictors of self-rated health.

3. Four sentences of the first paragraph have to add to the data analysis (p.11 line 1-13).

Response: Completed.

4. Revise the first sentence of the second paragraph as Table 2 showed that no significant differences were seen in the overall score and in the subscales for spiritual growth (p = .891), physical activities (p = .807), and nutrition (p = .182) between the junior and senior nursing students (p.11 line 24-32).

Response: Completed.
5. Add p value after health responsibility and use lower case on health responsibility (p.11 line 32). Delete the last sentence (p.11 line 34-36).

Response: Completed.

6. Revise the first and second sentences of the third paragraph as “Table 3 presented that the relationship between SRH and the various subscales of the HPLP-IICR among all nursing students were statistically significant, with low……HPLP-IICR subscales (p.11 line 42-49). Delete the last sentence (p.11 line 53).

Response: Completed.

7. Delete the first sentence of the first paragraph (p.12 line 1-3).

Response: Completed.

8. Delete the sentence of “The parameter estimates from the output of SPSS…. the 95% confidence interval (p.12 line 15-17).

Response: Completed.

9. Change the results as “Table 4” (p.12 line 17).

Response: Completed.


Response: Completed.

11. Delete “Please refer to Table 4 for details (p.12 line 30-32).

Response: Completed.

12. Table 2 and Table 4 has shown p values. Delete notes for both tables (p.25).

Response: Completed.
13. Is Table 4 a bivariate regression or multivariate regression (p.25)? Make a clear table for binary variable (e.g., list gender on a row and male vs. female on another row) (p.25 line 52-56).

Response: It is multivariate regression. The rows were added as suggested.

References:

Check references for following the author guideline (the low or upper case for the title (pp.20-23).

Response: Reference number 12, 20, 34, 41 & 46 were revised.