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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Author’s response to reviews:

Dear Dr. Hsieh,

Thank you very much for your valuable comments and allowing us to revise and improve the quality of the manuscript. The comments were seriously considered with a point-by-point response. All changes to the manuscript are indicated in the text by highlighting for easy reference.

We consulted a statistician to re-run the statistical analysis to confirm accuracy of the results.

The entire manuscript has been edited by a professional editor.

Editor Comments:

Title:

The title does not fit the aims of this study on page 6 line 26-31. The independent variables are demographic factors, whereas the dependent variables are self-rated health and health-promoting lifestyle of the title. However, the independent variables are demographic factors and health-promoting lifestyle, while the dependent variable is self-rated health of the second aim. Please clarify the aims of this study.
Response: The title and aims have been revised according to the comments to ensure consistency. Please note the revised title and aims of the paper.

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

“Our aims in this study were to investigate the health-promoting lifestyles of junior and senior year nursing students, including an examination of their overall and subscale scores and their self-rated health, and the correlations between self-rated health and health-promoting lifestyles; and to identify the predictors of the self-rated health of the nursing students.”

Abstract:

1. No data analysis is in methods of the abstract.

Response: “SPSS software and Microsoft Excel were used to analyse the data.”. The sentence has been included in methods of the abstract.

2. No aim is for the result of mean difference in health-promoting lifestyle’s overall score and subscales.

Response: Thank you. The aims have been revised.

3. The ordinal logistic regression for analyzing predictors of self-rated health using SPSS will not show odds ratio. Do the authors use multinomial logistic regression? The relationship between self-rated health and health-promoting lifestyle used Pearson’s correlation. This indicates that self-rated health is meet the requirement of normality assumption. Why do the authors use ordinal logistic regression rather than linear regression? Please clarify the data analysis of this study.

Response: Ordinal Logistic Regression was used to analyse the predictors of self-rated health. The SPSS outputs were extracted to Microsoft Excel to calculate the Odds Ratio to determine which variable has a large effect on the outcome, and the magnitude of the effects for that outcome. In Excel, a simple formula was created to calculate the Odds Ratios and the 95% Confidence based on the Parameter Estimates. The above information has been included in the manuscript for reader’s information.

In the original manuscript, we used parametric instead of non-parametric test due to the large sample size of >300. In the revision, a Shapiro-Wilk test was conducted to determine whether the variables fulfilled the assumption of normality. Majority of the variables were found not normally distributed; non-parametric tests were used instead of parametric tests.
4. The conclusion has to focus on the findings of this study and point out implications.

Response: The conclusion has been revised to summarize all the results and point out the implications of the study. Please refer to p.18.

Background:

1. The gap of this study is not clear on the last sentence of the background (p.6 line 10-17).

Response: Thank you. The phrase has been revised to make it legible and clear. Please refer to P.6.

2. No aims of this study was list in the last sentence of the background.

Response: The aims of the study was moved to the last paragraph of the background section and has been revised.

Methods:

1. The aims and research hypothesis of this study in methods has to move to the last sentence of the background (p. 6, line 25-31; p7 line 5-7). The aims and research hypotheses have to be consistent.

Response: The aims were moved to the last sentence of the background. To make it simple, the research hypotheses were removed as this is a descriptive correlational study.

2. The subheadings of methods can be reorganized as design, study setting and participants, instruments, data collection, ethical considerations, and data analysis.

Response: The subheadings of methods were re-organized as suggested. Thank you.

3. The sample size estimation is not clear to the readers. How do authors get the number of 274? Which statistics do authors use to calculate sample size?

Response: We used G-Power software for sample size calculation. The information of G-Power was included in the reference for readers’ information.

4. What are validity and reliability of instruments for self-rated health and health-promoting lifestyle in the original study and this study?
Response: Detailed information about the validity and reliability of the two scales in the original study and this study have been added in the instrument section. Both scales demonstrate their validity and reliability in the present study.

5. What is the possible scores of both instruments and how to interpret the possible scores?

Response: The possible scores of both instruments were added in the instrument section. The direction of the scale has been included as well.

6. Data analysis has to be consistent with studied aims and research hypothesis. The ordinal logistic regression for analyzing predictors of self-rated health using SPSS will not show odds ratio. Do the authors use multinomial logistic regression? The relationship between self-rated health and health-promoting lifestyle used Pearson’s correlation. This indicates that self-rated health is meet the requirement of normality assumption. Why do the authors use ordinal logistic regression rather than linear regression? Do authors run bivariate or multivariate regression for the data? The table 1 show differences in demographic variables and life habits using ANOVA for number of hours of part-time job and number of days eating outside by year group. This is wrong, because both variables are categorized as nominal variables rather than continuous variables. They should use Chi-square test. In addition, the number of clinical practicum by junior and senior groups have 0 so that violate the statistical assumption of Chi-square test (Expected frequencies are less than 5). Please clarify the data analysis of this study.

Response: The hypothesis has been removed. The aims of the study have been revised and consistent with data analysis.

The reason we used Ordinal Logistic Regression analysis because the scale for self-rated health is ordinal measure.

Chi-square test and Fisher’s Exact test (expected frequency <5) were used instead of ANOVA to compare the demographic variables for the two groups in the revised manuscript.

The SPSS outputs were extracted to Microsoft Excel to calculate the Odds Ratio to determine which variable has a large effect on the outcome, and the magnitude of the effects for that outcome. In Excel, a simple formula was created to calculate the Odds Ratios and the 95% Confidence based on the Parameter Estimates. The above information has been included in the manuscript for reader’s information.

In the original manuscript, we used parametric instead of non-parametric test due to the large sample size of >300. In the revision, a Shapiro-Wilk test was conducted to determine whether the variables fulfilled the assumption of normality. Majority of the variables were found not normally distributed; non-parametric tests were used instead.

Results:
1. The results just answer the aims of this study. Please check the consistency between the studied aims and results.

Response: The study aims have been revised to make them consistent with the data analysis and results.

“Our aims in this study were to investigate the health-promoting lifestyles of junior and senior year nursing students, including an examination of their overall and subscale scores and their self-rated health, and the correlations between self-rated health and health-promoting lifestyles; and to identify the predictors of the self-rated health of the nursing students.”

2. The first sentence of the results moves to the data collection (p.8 line 39).

Response: The sentence was moved to data collection as suggested.

3. No aims are for differences in both year group (Table 1 & Table 2), correlations between SRH and HPLP-IICR (Table 3) (pp.22-23).

The aims of the study have been revised as below.

“Our aims in this study were to investigate the health-promoting lifestyles of junior and senior year nursing students, including an examination of their overall and subscale scores and their self-rated health, and the correlations between self-rated health and health-promoting lifestyles; and to identify the predictors of the self-rated health of the nursing students.”

4. Table 2 has shown p values. Please delete note (p.23), change sig. as p value, and add t value and 95% CI.

In the revised manuscript, non-parametric tests were used instead of parametric test. We used median, inter-quartile range and range to show the total and sub-scale scores. The sig has been changed to p value as suggested.

5. Is Table 4 a finding of bivariate regression or multivariate regression (p/23)?

Response: Table 4 is the results of Ordinal Logistic Regression. Ordinal Logistic Regression was used because the dependent variable, self-rated health is an ordinal scale.

The SPSS outputs were extracted to Microsoft Excel to calculate the Odds Ratio to determine which variable has a large effect on the outcome, and the magnitude of the effects for that outcome. In Excel, a simple formula was created to calculate the Odds Ratios and the 95% Confidence based on the Parameter Estimates. The above information has been included in the manuscript for reader’s information.
Discussion:

Please check the consistency among the studied aims, results, and discussion.

Response: The study aims have been revised with the independent variable, self-rated health, being highlighted. The results were consistent with the study aims after revision. For the discussions, the contents have been re-organized according to the study aims with addition information on self-rated health among the two groups of students. After revisions, additional references were included and the sequence of in-text citations was revised.

Conclusions:

The conclusion has to focus on the findings of this study and point out implications.

Response: The conclusion has been revised focusing on the findings and results, with recommendations been incorporated.