Author’s response to reviews

Title: Health promoting lifestyle of university students in Saudi Arabia: a cross-sectional assessment

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Reviewer reports:

Silvia Lupi (Reviewer 1): I very appreciate the study. The manuscript is well written and quite easy to read, although I think the authors should consider some aspects needing improvements.

1. The authors stated that the aim of the study was to determine factors influencing health promoting behaviours among university student, applying for the first time HPLP to Saudi Arabia students. HPLP aims to measure the extent to which adults engage in following health-promoting lifestyle giving an overall score and subscales scores, allowing meaningful comparison. Why the authors did not calculate the score and adopted percentages for presenting data?
Reply: We are pleased that you reviewed our manuscript. In response to the comment we stream down the survey questionnaire into 3 subscales to ensure the cultural appropriateness and relevance of the instrument in Saudi Arabia that is why we did not calculate the overall scores and subscales scores. However, we have the 3 subscales scores to show and add another table if the reviewer wants to include this information.

2. Table 2 is very crowded of information and maybe a summary can add value to the paper.

Reply: We completely agree with the comment made by the Reviewer about the Table 2. We have now included explanations and summary of the table in the result section. We reported all findings that have significant difference between health and non-health colleges.

3. The authors only partially apply HPLP. When considering lifestyle and health I cannot contemplate smoking. Why did the authors completely avoid to consider smoking behaviours?

Reply: We appreciate and agreed with the reviewers’ comments about considering the smoking behaviors of the students however, smoking is a sensitive issue in Saudi Arabia particularly with females that is why we did not include this in our study. Furthermore, based from our literature review majority of the studies about prevalence of smoking among females in the Saudi Arabia is still low, not exceeding 15%. For example, in a 2013 national survey tobacco consumption in Saudi Arabia, among 10,735 participants completed the survey 1.1% were females [1]. Another study shows the prevalence of smoking among female students found 0.9% (N=3) were active smokers and 13.3% (N=44) who tried smoking among 332 participants [2].

Reference:


4. Unless I miss Page 7, line 8: the p value in the text and the p value reported in table 2 are different; Page 7, line 45 the p value in the text and the p value reported in table 3 are different.

Reply: Thank you we ensured that all information was checked and revised.
5. In the discussion (Page 9. Line 17), the authors compare their results with previous studies. I think a comparison with studies recruiting university students or younger subjects would be more appropriate than references 34-37 that are related to metal industry employees, Canadian adults, Finnish general population, Chinese general population.

Reply: As suggested by the reviewer, we already changed the references and compared the results with studies in younger subjects and university students.

6. Page 9, lines 52-56: I would be more cautious about fast food products, fat food are not necessarily consumed out of the house, the majority of the students lived with parents but we have no information about place of food consumption that is a variable that is necessary to consider as in the paper DOI: 10.4415/ANN_15_02_14

Reply: As suggested by the reviewer, we already edit and changed the word fast food products into unhealthy food products.

7. I suggest to give explanation of the acronym GPA

Reply: We already give explanation about the acronym of GPA

Grant James McGeechan (Reviewer 2):

We are pleased that you reviewed our manuscript

Page 3 line 19 - please define sedentary behavior

Reply: We already define the word sedentary behaviour

Page 3 line 16 Lifestyle should be lifestyle

Reply: This word has been revised.

Page 3 line 28 - Walker et al should be followed by a numbered citation rather than the year

Reply: This word has been revised.

Page 3 line 57 - wellbeing whereas before defined as well-being.
Reply: This word has been revised.

Page 4 line 10 - which poses them to a greater risk should read, which increases their risk

Reply: This sentence has been revised.

Page 4 line 14 - exercise have, should be exercise has

Reply: This word has been revised.

Page 4 line 31 - Given the changes made to the survey I feel it is inn inaccurate to claim that this study has used the HPLP

Reply: We have rewritten and revised this sentence.

Methods section - as questionnaire was distributed in both hard copy forms and electronically how did the authors control for duplicated studies completed by the same student.

Reply: With regards to the reviewers comment about the control for duplicated studies, the survey questionnaire was distributed in each department by one doctor or researcher assigned to that college. Also, one doctor in the female college used an online version of the questionnaire via Google Forms and the link was sent to all students in this college.

It is also not clear whether a sample size calculation was conducted, retrospectively or otherwise to show if the study was sufficiently powered to detect any differences.

Reply: With regards to sample size calculation, we used the formula by Krejcie & Morgan in their 1970 article “Determining Sample Size for Research Activities” to optimally estimate the population in the study.

Page 5 lines 28-54 - Please provide clearer justification for why the survey was refined, references to support the three sub-scales would be beneficial. It is also not clear why a shorter study would lead to questions being properly answered.

Reply: With regards to the survey questionnaire, before we started the process of data gathering, the questionnaire was translated into Arabic language by a professional language translator. Also the questionnaire was pilot tested to ensure the reliability, validity, and its appropriateness with respect to cultural relevance here in Saudi Arabia. The Arabic translated HPLP questionnaire had an acceptable Cronbach's alpha of 0.94. To ensure the cultural appropriateness and relevance the instrument the researchers decided to stream down the HPLP to three subscales consisting of 26
items. The chosen subscales are the ones known to have the most direct effect on health status, including health responsibility [9 items], physical exercise [8 items] and nutrition [9 items]. The Cronbach’s alpha coefficients of the three subscales that have been used varied between .79 and .87.

Page 5 line 48-54 - Discussion around cronbach's alpha is not clear - how could the survey have an internal consistency of 0.94 if the sub scales ranged from 0.79-0.87

Reply: The Arabic translated HPLP questionnaire had an acceptable Cronbach's alpha of 0.94. Each subscale was also tested and has an internal consistency varied between .79 and .87.

Page 5 line 55 - As no Arabic version of the survey has been validated this should be discussed as a validation

Reply: With regards to the validation of the questionnaire, the Arabic version was translated and pilot tested before the distribution of the questionnaire.

Results

Authors should clarify if any significance testing was conducted to look for differences in the characteristics of health and non-health participants which may explain some of the differences found

Reply: With regards to the difference of health and non-health participants found in the study, we used the frequency and chi square analysis in each category and reported in Table 2

Page 6 line 26 - Any justification for the study being heavily weighted towards female participants.

Reply: We agreed with the reviewers’ comments about the population in this study is heavily weighted towards female. We believe that the reason was due to majority of the students who participated in the study were female and more concern about the study. Also, male students may believe that our study was not valuable.

Page 6 line 32 - accepted terms are now having overweight or obesity rather than being overweight or obese.
Reply: We found your comments extremely helpful and we already revised accordingly.

Page 6 line 34 - Be specific - more than half were enrolled in a health college.
Reply: We already revised accordingly.

Page 6 line 58 - What direction was this significant difference
Reply: About the direction of the significant difference, we used chi square analysis and the frequency or response of students between health and non-health colleges in each category.

Page 7 line 4-17 - As above, you need to be clear what direction the difference is in, where the health or non health college students more likely to follow a planned exercise programme. This could be made clearer for all of the results - too many to examples to comment on them all.
Reply: We used chi square analysis and the frequency or response of students between health and non-health colleges in each category to determine the direction of the significant difference.

Page 7 line 10 - Differences between vigorous, light and moderate exercise should have been defined in the introduction
Reply: We found your comments extremely helpful and we added an explanation and defined vigorous, light and moderate exercise in the introduction.

Page 7 line 43 - Comparisons across gender is severely limited by your skewed sample.
Reply: We agree with the reviewers’ assessment. We will include this in the limitation of the study.

Discussion
Page 8 line 7 - Should read Health promoting lifestyle among adolescents has received
Reply: We already revised accordingly.

Page 8 line 8 - Define US as United States (US)
Page 8 line 32 - should read had rarely asked
Reply: We already revised accordingly.

Page 8 line 41 - should read the majority of students
Reply: We already revised accordingly.

Page 9 line 4 - small p for physical activity
Reply: We already revised accordingly.

Page 9 line 6 - colleges instead of college
Reply: We already revised accordingly.

Page 9 line 30 - should read Meanwhile no significant differences were found
Reply: We already revised accordingly.

Page 9 line 52 - do not, not don't
Reply: We already revised accordingly.

Table 1 - BMI categories should be defined i.e. underweight <18
Gender - Male and Female are not genders they are biological sex - instead men and women
Colleges should be clearly identified as health or non health with total n as this is the main groupings discussed in the paper
Diagnose with a health problem should be Diagnosed with a health problem
Reply: We already revised accordingly.