Author's response to reviews

Title: Obesity and overweight: prevalence and associated socio-demographic factors among mothers in three different areas in the Gaza Strip-Palestine: a cross-sectional study

Authors:

Rima Rafiq El Kishawi (rimaa2_us@yahoo.com)
Wan Manan Abdul Wan Muda (wanmanan@kb.usm.my)
Soo Kah Leng (sookl@kk.usm.my)
Yehia Awad Abed (Yabed333@yahoo.com)

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Author's response to reviews: see over
Reviewer’s report 1

-Discretionary Revisions: Questions numbers 2, 3, 4

2. Are the methods appropriate and well described?
Methods are appropriate but need to be improved. The way that you have described the methods are not at a satisfactory level. I would strongly suggest modifying the methodology section.

-Response
We reviewed and modified methodology section, Please refer to it in the article

3. Are the data sound?
Yes, but I do not feel adequately qualified to assess the statistics. Therefore, I would recommend to refer this article to a statistician to look over statistical analysis. I saw some discrepancies in data presenting.

-Response
We checked all statistic tests.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition? It is to be further improved. It is needed to do some strong language corrections before being published.

-Response
We corrected the language and grammar mistakes in the article.

-Minor Essential Revisions: 5, 6, 7, 8

5. Are the discussion and conclusions well balanced and adequately supported by the data? Yes, but need some modifications in language and way of reporting.

-Response
We corrected and modified all sentences in the article.

6. Are limitations of the work clearly stated? Yes, I would suggest incorporating limitations at the end of the discussion rather than stating separately in a new section.

-Response
Limitation of the study is included at the end in the discussion part
7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished? Yes, but need to be improved the citing reference list compatible with journal housing style.

-Response
All references are checked and cited according to the journal style.

8. Do the title and abstract accurately convey what has been found? I would prefer if you could remove the words “a cross sectional study” from the title. It is not essential as this is a cross sectional study. The abstract content is clear, but you could further concise it as there are many unnecessary descriptions. I suggest modifying the wording.

-Response
According to the requirements, type of methodology should be included in the title.

-Major Compulsory Revisions: 9
9. Is the writing acceptable? I strongly recommend carrying out some language corrections before being published.

-Response
We corrected the language in the article.
Reviewer’s report 2

Major Compulsory Revisions

Comment (1)
1-What were the considerations for calculating the sample size?
Response
The single proportion formula by the Epi-Info Software Revision (2), 2002 was used to determine the required sample size. Anticipated population proportion (p) = 32.0%, which was for obesity prevalence in 2010 among women in the Gaza Strip. Expected population proportion was 37.0%, and level of significance= 5% (0.05). The calculated sample size=334, if 20.0% of the data were missing. The total number of participants 334+ (0.20*334) =400. The researcher visited 357 of 400 households in the three areas in the Gaza Strip; for a response rate of 89.2%.

Comment (2)
It will be better to use Logistic Regression to examine the predictors of overweight and obesity. In other words, use BMI as a categorical variables rather than a continuous one.
Response
We couldn’t use logistic Regression because we have more than two categories for BMI according to WHO classification such as Normal, Underweight, Overweight, and Obesity. So we preferred to use BMI as continuous variable.

Comment (3)
The manuscript has a number of grammatical errors that need to be corrected.
Response
Grammar errors was checked and corrected. Please refer to the article.

Comment (4)
Introduction is too long. Please shorten it.
Response
Introduction was shorted. Please refer to the article.

Comment (5)
The results section is repetitive. Please do not repeat information from the tables.
Response
Results were checked, Please refer to the results part in the article

Minor Essential Revisions

Comment (1)
1. While describing the data collection, use ‘we’ instead of the researchers (page 5, line 1). Alternatively, use passive voice.
Response
The sentence was corrected, Please refer to the article.

Comment (2)
2. Shorten the description of anthropometric measurements.
Response
It was done. Please refer to the methodology part in the article.
Comment (3)
3. In the statistical analysis section, the authors mention using logistic linear regression with BMI as a dependent variable. This is not correct. I think they have used linear regression. I suggest using logistic regression with overweight/obesity as a categorical variable.

Response
It was corrected to linear regression; as I explained before, we couldn’t use logistic regression with overweight/obesity because we have more than two categories normal, overweight, and obesity. In this case we must use advanced test multinomial logistic regression. Therefore we preferred to use BMI as continues variables and used liner regression.

Comment (4)
4. It is not clear from which committee the ethical clearance for the study was obtained.

Response
The ethical clearance was obtained from the Ministry of Health and the Helsinki Committee in the Gaza Strip. Ethical clearance was also obtained from University Sains Malaysia (USM) ethical Committee.

Comment (5)
5. Use past tense throughout to describe the results.

Response
All was done; please refer to results part in the article.

Comment (6)
6. I suggest the authors should rearrange the discussion in following sub-sections: comparison with published studies, strengths and limitations, implications of the findings and conclusions.

Response
It was done; please refer to discussion part in the article.

In table 3, include regression coefficients of all the variables rather than only selected few.
I included all the variables in the first model, while the second model included just only the significant factors.
Reviewer’s report 3

Section I

1. Is the question posed original, important and well defined?
The question posed by the authors is easily identifiable and understood. As claimed by the authors, studies on prevalence of overweight and obesity in the similar area have been done earlier, though pattern of overweight and obesity prevalence has not been explored. The results and discussions are in line with the study objectives as well.

Response
The pattern of overweight and obesity prevalence in previous studies has been explored in the discussion part.

2. Are the data sound and well controlled?
The data collected is in line with the objectives of the study. The method of sampling and calculation of sample size seems appropriate, though the entire sample size has not been covered, although the authors have achieved a response rate of 89.2% but they have not mentioned the problems encountered for not covering the entire sample size. Validity of tools and standardized techniques have been used for data collection, hence, the methods of data collection are appropriate.

Response
The sample size and the response rate were explained in method part, and in the first paragraph of results the response rate was explained in details.

3. Is the interpretation (discussion and conclusion) well balanced and supported by the data?
The interpretation of data has been supported by other studies and relevant references have been used. The results are interpreted in an unbiased manner, where both positive and negative results have been given equal importance. Some part of the discussion and conclusions, are not directly reported from the results obtained. Lifestyle factors, though, already known from studies done elsewhere, are important risk factors in causing an increase in overweight and obesity, but the study does not involve obtaining information on these parameters, but certain statements made on lifestyle factors seem inappropriate and are not supported by other relevant references (Paragraph 3, Discussion Section)

Response
My objective of this study to determine the socio-demographic factors of obesity, and we used life style and physical activity to support our results.

4. Are the methods appropriate and well described, and are sufficient details provided to allow others to evaluate and/or replicate the work?
The methods used for data collection are appropriate with the study objectives and design. The methodology used for the study is detailed, including, a description of the study design, locale, sample recruitment and characteristics (number, gender and method of sampling), tools used for data collection and proposed methods of data analysis. Complete methodology has been provided for anthropometric techniques and calibration of equipments has also been
done. Ethical issues have been taken into consideration. The questionnaire used for the study has been validated and pilot tested, with changes incorporated at the final stage. Statistical analysis has been done for all the variables under study. Calculation of Odds Ratio could also be done in addition to other statistical analysis for better interpretation.

**Response**

We can use Odds Ratio in multiple logistic regressions, while here we used linear regression.

5. **What are the strengths and weaknesses of the methods?**

The strengths of the methods used are that standardized techniques and validity of tools have been taken into consideration thus providing reliable results. Improvements could be made with respect to the study design. As stated, similar studies have been performed in this area to explore the prevalence of overweight and obesity, thus, additional data could be collected on other risk factors of overweight and obesity, like lifestyle factors including diet and physical activity, which have been discussed in this article, though no information, has been collected. These data can provide a better picture of this rising epidemic in this area.

**Response**

As I explained before, my objective of this study to determine the socio-demographic factors of obesity, and we used lifestyle and physical activity to support our results.

6. **Can the writing, organization, tables and figures be improved?**

The writing of the article needs improvements. The details of the grammatical errors are included section wise in this review report. The organization of the manuscript is appropriate, but minor essential revisions are needed before publication. Tables provided in the article are appropriate, though formatting of the tables need to be done (titles, data, legends, spacing and grammatical errors) before the manuscript gets published. Other details are provided in Section II of the report.

**Response**

All the grammar errors are corrected. Formatting the tables (titles, data, legends, spacing and grammatical errors) was done.

7. **When revisions are requested.**

The details of the revisions are provided in Section II of the report. Some statements in the discussion and conclusion sections respectively, are not directly supported with other relevant references, nor, are supported with the results of the study (data not collected). These statements could be revised.

**Response**

All the statements were checked; please refer to discussion and conclusion parts.

8. **Are there any ethical or competing interests issues you would like to raise?**

There are no ethical or competing interests that need to be raised.

9. **Are the included additional files (supplementary materials) appropriate?**

Some data has not been published as reported in the manuscript (Paragraph 3, Results Section) and thus supplementary files if attached, would be helpful in interpreting the results.
of the study.

Response

The final results in the final model included just only the significant variables, there is no other data given.

Section II

Abstract

A. The abstract entails the background, objectives, methods, results and conclusion in a clear and concise manner. The statement of purpose is objectively given and the results thus provided are in line with the objectives. The purpose of the research study is stated clearly and in present tense. It also explains the nature of the population being studied, however there is no relationship observed between variables under study. Both positive and negative findings are provided in the abstract.

Minor Essential Revisions

1. The comments regarding grammatical errors were corrected.

3. Sampling strategy should be included in the Methods section of the abstract.

Response

It was done; please refer to the methods section of the abstract.

Minor Essential Revisions

1. With reference to Paragraph 1 (Background section), formatting and grammatical corrections need to be made.

Response

All was done; please refer to the background section.

All statements were reworded in background section.

Methodology

Calculation of Odds Ratio has not been done which seems appropriate for this study, hypothesis has not been given in the article

Response

As explained before, we didn’t use Odds Ratio for our calculations linear regression. Hypothesis is included in the article.

Minor Essential Revisions

Study design, setting and population

Response

All statements were reworded and spelling mistake was corrected

- Comment: With reference to the Sample size sub-section under the Methods section:
The method of sampling and calculation of sample size seems appropriate, though the entire sample size has not been covered, although the authors have achieved a response rate of 89.2%. Reasons for not achieving the entire sample size as calculated have not been
mentioned. Also, information regarding the number of households in the three areas that have 
not been covered is also not provided (remaining mothers; \( n = 43 \)). Details regarding this 
would provide a clearer picture of the results obtained in the study.

Response  
Details regarding the sample size and sampling were explained in methodology section, and 
for the response rate please refer th the first paragraph in results section

Results

D. The results of the study are in line with the objectives of the study. Socio-demographic 
variables have been analysed and appropriate statistical tests have been used. 
Data are not shown for variables where no association has been found, though these 
data could have been attached as supplementary.

Response  
In the final model of linear regression we have just only the significant variables.

Minor Essential Revisions  
1. With reference to Table 1, as the study is to find out the prevalence of overweight and 
obesity and WHO reference values for BMI have been used for classification, thus BMI 
values must be provided in the table. Another concern is regarding the similarity of heights of 
woman residing in all the three areas. Results need to be checked. Formatting of Table 1 is 
required as the values are not under the right columns and the title of the table could be edited 
as well.

Response  
-Table 1showed the differences of anthropometric measurements and socio-demographic 
characteristics in the three different locations. Formatting of Table 1 was done. 
- For BMI values were added in table 2 
-Our results showed that the mean of height in the three areas was the same

2. With reference to Table 2 and 4 respectively, titles can be edited to provide a clearer 
picture of the data

Response  
Titles were edited. Please refer to Table 2 and Table 3

3. Age wise classification for BMI can be provided in support of the significant association 
observed between BMI and increasing age. This could help in exploring the most vulnerable 
group among women in the age group of 18-50 years and thus interventions can be targeted 
to a specific group.

Response  
Table 3 was performed to explain the distribution of BMI category among mothers’ age 
groups, please refer to Table 3.

All required statements were e reworded, please refer to results section.

Discussion

Minor Essential Revisions  
1. With reference to Paragraph 1 (Discussion section), spelling and formatting errors need to 
be corrected.

Response
Spelling and formatting errors were done.

The required statements were checked for grammatical errors and were reworded.

4. With reference to Paragraph 3 (Discussion section), status of employment, i.e., being a housewife has shown a higher risk for obesity as compared to the employed women. The discussion involves, this difference being attributed to the difference in physical activity levels and food availability, though no data has been collected or presented in the article.

Response
My objective of this study just to find the socio-demographic factors with obesity, I used physical activity levels and food availability just to explain my results

5. With reference to Paragraph 3 (Discussion section), a statement on non-sedentary lifestyles, low accessibility to vehicles for transportation and food insecurity is given, although no data has been presented on these variables.

Response
We used non-sedentary lifestyles, low accessibility to vehicles for transportation and food insecurity just to support our results.

6. With reference to Paragraph 3 (Discussion section), the statement “Lower BMI among poor individuals...vehicle for transportation and food insecurity,” needs to be checked for spelling and grammatical errors.

Response
All errors were checked.

7. With reference to Paragraph 4 (Discussion section), bibliographic reference, is not according to the journal standards and thus, needs to be corrected.

Response
Reference is corrected according to the journal standards

F. Conclusion
Minor Essential Revisions

Response
The required statement was checked for grammatical errors and was reworded.

- Comment: Lifestyle includes a range of factors, which have not been observed in this study, hence concluding on the basis of lifestyle variables seems inappropriate.

Response
Lifestyle was included just to justify and discuss our results
Limitations of the study

A stronger study design involving assessment of lifestyle and socio-demographic factors can provide valuable information.

Response
My objective to find the socio-demographic factors of obesity, so not include lifestyle.

H. Bibliography
The format followed for writing the bibliography is not as per the journal requirements. The reference styling must be referred and checked for correction before publication.

Response
All references are corrected according to the journal standards.