

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Perception of obesity and overweight among adults living in suburban Nepal: A qualitative study
AUTHORS	Shrestha, Sachita; Asthanee, Shanta; Karmacharya, Biraj Man; Subedi, Seema; Koju, Rajendra

VERSION 1 – REVIEW

REVIEWER	Kufre J. Okop University of Cape Town, South Africa
REVIEW RETURNED	14-Sep-2020

GENERAL COMMENTS	<p>BMJ Open Peer Review</p> <p>A qualitative study on the perception of obesity in Nepal</p> <p>Reviewer's comments</p> <p>Abstract:</p> <p>Objective: The objective is not stated appropriately. The obesity perceptions were the assertions from Nepalese adults which included community members and four health care providers. Maybe stated thus:</p> <p>To explore the perception of obesity and overweight among Nepalese adults living in a suburban community.</p> <p>Participants: Four focus group discussions were conducted with general people (n= 22) and four in-depth interviews were conducted with health providers.</p> <p>Instead of 'general people', it should be 'community members'.</p> <p>Result: The objective of the study wasn't to determine if the health workers can identify central obesity. If this is the case, then it would be important to be stated this as an objective.</p> <p>Strengths and Limitations of this study</p> <p>Limitation is spelt incorrectly. Letter 't' is missing.</p> <p>The author stated that his is the first study in Nepal to explore the perception of obesity among adults. This is not quite correct. There are a few studies in Nepal that have looked at issues regarding what people know about obesity, and the attitudes. E.g. is that of Simkhada P, Poobalan A, Simkhada PP, Amalraj R, Aucott L. Knowledge, attitude, and prevalence of overweight and obesity among civil servants in Nepal. Asia-pacific Journal of Public Health. 2011 Jul;23(4):507-517. DOI: 10.1177/1010539509348662.</p> <p>Another study is that undertaken by Vaidya A, Shakya S, Krettek A (2010). Obesity prevalence in Nepal: public health challenges in a low-income nation during an alarming worldwide trend.</p> <p>Background</p> <p>Studies to learn about perceptions about obesity have been conducted widely in many LMICs, including Asian countries. For this, the authors need to give convincing justifications why this study and</p>
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	<p>the methods used are necessary, and the expected value this would add to to already existing body of knowledge in this obesity research.</p> <p>Methods:</p> <p>Participants</p> <p>Lines 112-113: Instead of “We used purposeful, maximum variation sampling to include participants...”, authors should consider stating clearly that ‘Participants were selected using purposeful sampling methods. Then, go ahead to describe how this was done.</p> <p>Lines 116-117- “We contacted 48 eligible participants via phone or home visit. Of which, 22 participated in the discussion”. These sentences need to be modified either into one, or two simple sentences.</p> <p>Line 121: IDI mentioned for the first time. This needs to be stated in full.</p> <p>Line 122: All agreed to participate in the study. This shows readers that the 4 health providers had agreed to participate, and maybe not all participated at the end. Kindly state this clearly to remove some doubt.</p> <p>Also, the steps taken to undertake IDIs were not taken. Were all participants interviewed in the houses, or in the clinics, etc. Who did the interviews, and how were these done.</p> <p>Data collection:</p> <p>The tools used, the number of questions, and description of key questions asked should be described in details. This is important to give reader a sense of what was done.</p> <p>Data Analysis:</p> <p>There is the need to describe in detail structural and thematic analysis in more details. As it is now, the thematic aspect is explained in some details.</p> <p>Authors need to described in some details how/what type of consent was sort, and other ethics consideration, including confidential.</p> <p>Patients and public involvement</p> <p>The authors stated that there were no involvement of either patients or the members of the public in conception, analysis and writing of the study. This does not make the study strong in impact to the community. It is commonly required that community members or participants should be duly involved in the studies, at list for them to learn about their general inputs, and also to valid their findings. The research team needs to get back to the researchers to give them feedback of their findings, where necessary.</p> <p>Results:</p> <p>Table 1: Remove Religion, since everyone is Hindu. This should be captured in the description of participants in narrative form.</p> <p>Table 2: there is no need for this table as this can be captured in a single sentence. I can see that this has been mentioned under participants.</p> <p>Table 3: There is nothing in the table that depict structural analysis/coding pattern as captured in the methods.</p> <p>Most of the results looks similar to what has been reported in most LMICs. There is good need to make logical comparisons with the other LMICs, and how the Nepal context may have contributed to any difference. This should be discussed in the discussion section.</p> <p>Discussions:</p> <p>The 2-4 starting sentences in the discussion section are not making the discussion of the findings to begin well. The authors should state in summary what the findings of this particular study indicate, and then discuss most of these in details, and making comparisons</p>
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	<p>where necessary.</p> <p>Conclusion: This is well written. However, the author indication that this 'study explored the knowledge, attitude, and perception of obesity among Nepalese adults' shows that this kind of study had been done in part, among Nepalese, and this may not be the first time.</p>
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REVIEWER	Rajat Das Gupta University of South Carolina
REVIEW RETURNED	24-Sep-2020

GENERAL COMMENTS	<p>Shrestha et al., conducted a qualitative research aiming to explore the perception of obesity and overweight among Nepalese adults living in a suburban community from both community's and health providers' perspectives. Four focus group discussions were conducted with general people (n= 22) and four in-depth interviews were conducted with health providers.</p> <p>The authors found that people had inadequate knowledge regarding the consequences of obesity, and they perceived overweight as normal, healthy, and attractive. The adults above 40 years of age did not perceive themselves to be overweight/obese. Despite the participant's awareness of the importance of diet control and exercise to prevent obesity, these were not translated into practice. The manuscript addresses an important social issue in the context of nutritional transition. However, I have several comments on the manuscript, which the authors should address in order to improve the quality of their manuscript.</p> <p>COMMENTS:</p> <p>1. Strengths and limitations of the study: "The study findings may not be generalizable to other population because of small sample size and limitation to only the Dhulikhel Heart Study participants residing in suburban area."</p> <p>Comment: This is a qualitative study. In qualitative study, we do not generalize the findings, rather we look for transferability in another setting or context. Please revise this statement.</p> <p>2. Methods:</p> <ul style="list-style-type: none"> • The sample size was not clear. How many participants were included in the FGD? The authors mentioned the number in the abstract, but it is not clear from the body of the manuscript. • Why the community members were not included in the IDI? • How many sample was included in the IDI? Please mention the total number. • Under the participants subtitle the authors mentioned that "We conducted a Focus group Discussion (FGD) with the DHS participants." Under the data collection subtitle the authors mentioned that "All FGDs were moderated by the researcher and assisted by a note taker." This is confusing. How many FGDs were taken? Please mention explicitly. <p>3. Results:</p> <ul style="list-style-type: none"> • All the respondents were Hindu. The perception of individuals of the other religions could not be found. Please mention this in the limitations. • Were their any differences in the perception among the overweight and normal weight individuals other than the body size perception. It would be interesting to learn the differences on perception. For example, the authors should mention whether there was a difference in the perception in the following subdomain: complications of
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	obesity and barriers to weight management.
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VERSION 1 – AUTHOR RESPONSE

Reviewer: 1
Reviewer Name
Kufre J. Okop

Institution and Country
University of Cape Town, South Africa

Please state any competing interests or state 'None declared':
None

Comments to the Author
BMJ Open Peer Review
A qualitative study on the perception of obesity in Nepal

Reviewer's comments

Abstract:

Objective: The objective is not stated appropriately. The obesity perceptions were the assertions from Nepalese adults which included community members and four health care providers.

Maybe stated thus:

To explore the perception of obesity and overweight among Nepalese adults living in a suburban community.

We agree with the reviewer and revised the objective as "To explore the perception of obesity and overweight among Nepalese adults living in a suburban community." (Page 2, Lines 38-39)

Participants: Four focus group discussions were conducted with general people (n= 22) and four in-depth interviews were conducted with health providers.

Instead of 'general people', it should be 'community members'.

We replaced 'general people' with 'community members'. (Page 2, line 45)

Result: The objective of the study wasn't to determine if the health workers can identify central obesity. If this is the case, then it would be important to be stated this as an objective.

Thank you for your suggestion. We removed the sentence regarding central obesity from the result section. (Page 2, lines 52-54)

Strengths and Limitations of this study

Limitation is spelt incorrectly. Letter 't' is missing.

Revised. (Page 3, line 63)

The author stated that his is the first study in Nepal to explore the perception of obesity among adults. This is not quite correct. There are a few studies in Nepal that have looked at issues regarding what people know about obesity, and the attitudes. E.g. is that of

Simkhada P, Poobalan A, Simkhada PP, Amalraj R, Aucott L. Knowledge, attitude, and prevalence of overweight and obesity among civil servants in Nepal. Asia-pacific Journal of Public Health. 2011 Jul;23(4):507-517. DOI: 10.1177/1010539509348662.

Another study is that undertaken by Vaidya A, Shakya S, Krettek A (2010). Obesity prevalence in Nepal: public health challenges in a low-income nation during an alarming worldwide trend.

We agree with the reviewer that other studies investigated the obesity issue in Nepal. However, we wanted to highlight that this is the first qualitative study in Nepal to explore the perception of obesity and overweight among adults, which includes both community members and healthcare providers. Therefore, we revised the sentence as "To our knowledge, this is the first qualitative study in Nepal to explore the perception of obesity and overweight among adults in a suburban community in Nepal." (Page 3, lines 64-65)

Background

Studies to learn about perceptions about obesity have been conducted widely in many LMICs, including Asian countries. For this, the authors need to give convincing justifications why this study and the methods used are necessary, and the expected value this would add to already existing body of knowledge in this obesity research.

Thank you for the suggestion. We added a paragraph justifying the study as well as the value it would add to the existing body of literature (Pages 5, lines 106-123).

The justification for using necessary methods is added to the data collection section. (Page 6, lines 133-134)

Methods:

Participants

Lines 112-113: Instead of "We used purposeful, maximum variation sampling to include participants...", authors should consider stating clearly that 'Participants were selected using purposeful sampling methods. Then, go ahead to describe how this was done.

We have revised the sampling method section based on your valuable remark. (Page 6, lines 134-144)

Lines 116-117- "We contacted 48 eligible participants via phone or home visit. Of which, 22 participated in the discussion". These sentences need to be modified either into one, or two simple sentences.

We revised the sentence as: "Of the 48 eligible participants who agreed to participate, 22 took part in the group discussions." (Page 6, lines 140-142).

Line 121: IDI mentioned for the first time. This needs to be stated in full.

Revised. (Page 6, line 145)

Line 122: All agreed to participate in the study. This shows readers that the 4 health providers had agreed to participate, and maybe not all participated at the end. Kindly state this clearly to remove some doubt.

We revised the sentence as: "All HCPs who were invited agreed to participate in the study and were interviewed." (page 6, lines 148-149)

Also, the steps taken to undertake IDIs were not taken. Were all participants interviewed in the houses, or in the clinics, etc. Who did the interviews, and how were these done.

Thank you for your suggestion. We have included the details of IDI under the 'data collection' section. (Pages 8, lines 178-187)

Data collection:

The tools used, the number of questions, and description of key questions asked should be described in details. This is important to give reader a sense of what was done.

We agree with the reviewer and added the details on the 'data collection' section. (Pages 7-8, lines 165-174; 180-187).

Data Analysis:

There is the need to describe in detail structural and thematic analysis in more details. As it is now, the thematic aspect is explained in some details.

We apologize for our mistake in this section. We removed structural analysis from the method and expanded the thematic analysis. (Pages 8, lines 189-200).

Authors need to described in some details how/what type of consent was sort, and other ethics consideration, including confidential.

We added the following sentences under the “Ethics statement” section:

“All participants who gave verbal consent to participate in the study also signed an informed consent form. Participation in the study was voluntary. All collected data were kept safe and strictly confidential.” (Page 8-9, lines 202-204)

Patients and public involvement

The authors stated that there were no involvement of either patients or the members of the public in conception, analysis and writing of the study. This does not make the study strong in impact to the community. It is commonly required that community members or participants should be duly involved in the studies, at list for them to learn about their general inputs, and also to valid their findings. The research team needs to get back to the researchers to give them feedback of their findings, where necessary.

Thank you for your suggestion. We added the following sentence under this section:

“The study design and objectives were informed by previous findings from the DHS study which indicated the high prevalence of obesity and poor cardiovascular health literacy among the community members. Although we did not specifically do separate community engagement for this study, we did include the discussions in the planning of the DHS in several community activities at schools, wards, meetings with female community health volunteers, and other local community clubs.” (Page 9, 207-212)

Results:

Table 1: Remove Religion, since everyone is Hindu. This should be captured in the description of participants in narrative form.

Thank you for your suggestion. We removed Religion from Table 1. (Page 9, line 216)

Table 2: there is no need for this table as this can be captured in a single sentence. I can see that this has been mentioned under participants.

We removed Table 2. (Page 10, line 218)

Table 3: There is nothing in the table that depict structural analysis/coding pattern as captured in the methods.

We apologize again for our mistake in this section. We removed structural analysis from the method section. (Page 8, line 190)

Most of the results looks similar to what has been reported in most LMICs. There is good need to make logical comparisons with the other LMICs, and how the Nepal context may have contributed to any difference. This should be discussed in the discussion section.

Thank you for your suggestion. We have made a logical comparison with the other LMICs and added Nepal's context where possible. (Page 19-22, lines 446-523)

Discussions:

The 2-4 starting sentences in the discussion section are not making the discussion of the findings to begin well. The authors should state in summary what the findings of this particular study indicate, and then discuss most of these in details, and making comparisons where necessary.

Based on your valuable remarks, we have added the summary of the findings in the first paragraph and discussed most of these in detail in the consecutive paragraphs. (Page 18, lines 426-431)

Conclusion: This is well written.

However, the author indication that this ‘study explored the knowledge, attitude, and perception of obesity among Nepalese adults’ shows that this kind of study had been done in part, among Nepalese, and this may not be the first time.

We agree with the author that this is not the first study in Nepal to assess knowledge, attitude, and perception regarding obesity among Nepalese adults. However, we would also like to point out that this is the first qualitative study to explore the perception of obesity among adults in Nepal, which

includes both community members and health providers. The detail is mentioned in the introduction section (Page 5, lines 111-119)

Reviewer: 2
 Reviewer Name
 Rajat Das Gupta

Institution and Country
 University of South Carolina

Please state any competing interests or state 'None declared':
 'None declared':

Comments to the Author

Shrestha et al., conducted a qualitative research aiming to explore the perception of obesity and overweight among Nepalese adults living in a suburban community from both community's and health providers' perspectives. Four focus group discussions were conducted with general people (n= 22) and four in-depth interviews were conducted with health providers.

The authors found that people had inadequate knowledge regarding the consequences of obesity, and they perceived overweight as normal, healthy, and attractive. The adults above 40 years of age did not perceive themselves to be overweight/obese. Despite the participant's awareness of the importance of diet control and exercise to prevent obesity, these were not translated into practice. The manuscript addresses an important social issue in the context of nutritional transition. However, I have several comments on the manuscript, which the authors should address in order to improve the quality of their manuscript.

COMMENTS:

1. Strengths and limitations of the study: "The study findings may not be generalizable to other population because of small sample size and limitation to only the Dhulikhel Heart Study participants residing in suburban area."

Comment: This is a qualitative study. In qualitative study, we do not generalize the findings, rather we look for transferability in another setting or context. Please revise this statement.

We agree with the reviewer. We revised the sentence as: "The study is limited to the Dhulikhel Heart Study participants residing in a suburban area; therefore, the findings of the study may not be transferable in rural or urban areas." (Page 3, lines 70-71)

2. Methods:

- The sample size was not clear. How many participants were included in the FGD? The authors mentioned the number in the abstract, but it is not clear from the body of the manuscript.

The number of participants included in the study is mentioned in the "Participants" section (Page 6, line 131, 140-142).

- Why the community members were not included in the IDI?

We did not conduct IDI with community members as the focus group discussion method has been proven adequate in gathering information on perceptions of body size, disease risk, and weight-loss among adults. The reason for conducting a focus group discussion is mentioned under the "Participants" section. (Page 6, lines 133-134).

- How many sample was included in the IDI? Please mention the total number.

We conducted a total of four IDIs. The total number of IDI is mentioned in the "Participants" section (Page 6, lines 145)

- Under the participants subtitle the authors mentioned that "We conducted a Focus group Discussion (FGD) with the DHS participants." Under the data collection subtitle the authors mentioned that "All FGDs were moderated by the researcher and assisted by a note taker." This is confusing. How many FGDs were taken? Please mention explicitly.

Under the participants' section, we revised the sentence as: "We conducted four focus group discussions (FGD) with 22 DHS participants." (Page 6, line 131)

3. Results:

- All the respondents were Hindu. The perception of individuals of the other religions could not be found. Please mention this in the limitations.

Thank you for the suggestion. We mentioned this as a limitation in the discussion section. (Page 23, lines 542-544)

- Were there any differences in the perception among the overweight and normal weight individuals other than the body size perception. It would be interesting to learn the differences on perception. For example, the authors should mention whether there was a difference in the perception in the following subdomain: complications of obesity and barriers to weight management.

Based on your valuable remark, we added the following texts under the sections "complications of obesity" and "barriers to weight management sections".

Participants who had overweight were more concerned about complications, in terms of both their health and appearance, than those with a normal weight. Male participants under the age of 40 years were more concerned about their health and appearance due to overweight. (Page 13, lines 269-272)

Both overweight/obese and normal-weight participants reported similar barriers to weight management. (Page 16, lines 367-368).

We also added the following sentence in the discussion section indicating the possible reason for no difference in perceived barriers to weight management among overweight and normal-weight participants:

"In our study, both the overweight and normal-weight participants reported similar barriers to weight management. This could be because only a few participants in our study reported exercising or controlling a diet to reduce or prevent obesity. Moreover, participants who were overweight did not perceive themselves as overweight and did not feel the need to change their behavior." (Page 22, lines 517-521)

VERSION 2 – REVIEW

REVIEWER	Kufre J. Okop University of Cape Town, South Africa
REVIEW RETURNED	11-Feb-2021
GENERAL COMMENTS	<p>BMB Paper: Perception of obesity and overweight among adults living in suburban Nepal: A qualitative study</p> <p>Reviewer's Comments</p> <p>Abstract: Design: There should be an 'of' after 'comprising'. Result: It should be reported in the present though conducted 5 years ago. My suggestion: "Obesity is a rising problem in this suburban community".</p> <p>An additional Strength/ Limitation of the study could be: This study provides information on obesity and its perceived threat in a resource-poor setting. This has generated recommendations and possible strategies for obesity and NCD prevention in the vulnerable population in Nepal.</p> <p>Methods Participants: If 22 of the 48 eligible participants participated in the</p>

	<p>FGDs, how many will be left that did not attend. It should be 26, and should be reported so.</p> <p>Results</p> <p>From Lines 362-371</p> <p>“The most frequently reported barrier for diet control was difficulty in changing food habits due to food taste and desire to eat. Participants also mentioned the unavailability of healthy food due to the use of excessive pesticides in vegetables and fruits. In addition, participants’ reported that the increased availability and efficiency of consuming junk food has limited their consumption of healthier food. Consuming junk food was also a status symbol. One participant explained that people in the community eat junk food to show that they belong to a higher social status”.</p> <p>This, I think is the one essential addition to the findings in literature on this topic, especially as it pertains to Nepal in comparison to other suburban areas in the globe. So, this should be emphasised. The above paragraph gives important findings of this study. The author should emphasise these group of finding, and use them in the discussion/recommendation. For this, I suggest that this paragraph should be given a sub-title such as “Effect of a challenge food environment (or ‘Foodscape’ and diet behaviours’, or something indicating issues with a challenging food environment in Nepal).</p> <p>Discussion/Conclusion:</p> <p>This is perfectly written. However, there is the need to emphasise on diet and behaviour, and well as how the challenge food environment, or the effect of ‘Foodscape’ on diet behaviours.</p>
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REVIEWER	Rajat Das Gupta University of South Carolina
REVIEW RETURNED	02-Dec-2020
GENERAL COMMENTS	The authors have addressed all of my comments satisfactorily. The quality of the manuscript increased. I recommend the manuscript for publication, and wish the authors good luck.

VERSION 2 – AUTHOR RESPONSE

Abstract:

Design: There should be an ‘of’ after ‘comprising’.
Revised. (Page 2, Line 41)

Result: It should be reported in the present though conducted 5 years ago. My suggestion: “Obesity is a rising problem in this suburban community”.
We revised the sentence as suggested. (Page 2, Line 48)

An additional **Strength/ Limitation** of the study could be:

This study provides information on obesity and its perceived threat in a resource-poor setting. This has generated recommendations and possible strategies for obesity and NCD prevention in the vulnerable population in Nepal.

Thank you for the suggestion. We added the sentence in the Strength/Limitation section. (Page 3, Line 68-70)

Methods

Participants: If 22 of the 48 eligible participants participated in the FGDs, how many will be left that did not attend. It should be 26, and should be reported so.

We added the sentence as “Altogether 26 eligible participants did not participate in the study.” (Page 6, Line 139-140)

Results

From Lines 362-371

“The most frequently reported barrier for diet control was difficulty in changing food habits due to food taste and desire to eat. Participants also mentioned the unavailability of healthy food due to the use of excessive pesticides in vegetables and fruits. In addition, participants’ reported that the increased availability and efficiency of consuming junk food has limited their consumption of healthier food. Consuming junk food was also a status symbol. One participant explained that people in the community eat junk food to show that they belong to a higher social status”.

This, I think is the one essential addition to the findings in literature on this topic, especially as it pertains to Nepal in comparison to other suburban areas in the globe. So, this should be emphasised. The above paragraph gives important findings of this study. The author should emphasise these group of finding, and use them in the discussion/recommendation. For this, I suggest that this paragraph should be given a sub-title such as “**Effect of a challenge food environment (or ‘Foodscape’ and diet behaviours’, or something indicating issues with a challenging food environment in Nepal).**”

Based on your valuable remark, we added a subtitle “Effect of challenging food environment and diet behaviour” on the result section (Page 16, Line 365). We also discussed further on this topic in the discussion section. (Page 21-22, Line 495-519)

Discussion/Conclusion:

This is perfectly written. However, there is the need to emphasise on diet and behaviour, and well as how the **challenge food environment, or the effect of ‘Foodscape’ on diet behaviours.**

Thank you for your suggestion. We emphasized the effect of challenging food environment and diet behaviour in the discussion/conclusion sections. (Page 21-22, Line 495-519; Page 23, Line 548-549)