Reviewer's report

Title: Association of Self perception of weight with actual weight in adults presenting to primary care clinics in Pakistan: a cross sectional study

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Reviewer: Kristiina Ojala

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The study described in the manuscript by Bhanji et al. investigates the association of self-perception of weight with actual weight – as determined by body mass index – in Pakistani adults. The data were obtained from three primary care clinics located in Karachi. A structured pre-coded questionnaire and anthropometric measures were used as a basis for this comparison. The authors conclude that the findings of this study relate to a weight misperception (i.e., overweight people who believe their weight is appropriate). The associated factors leading to this misperception were: age over 40 years; being male; being happy with one’s weight or not thinking about it; and not knowing one’s ideal weight.

The introduction, accurately done statistical analyses, results and vast majority of the discussion all concentrate on the overweight/obese people’s weight misperception and not being motivated to reduce their weight as a consequence. Therefore the title of the article does not completely mesh with the contents. In addition, the limitations due to the sample population should be more clearly acknowledged. As a summary of the aforementioned matters, I would propose that the authors focus on describing the underestimation of their weight in overweight and obese Pakistani participants and reduce the emphasis on the study population’s characteristics.

The manuscript is coherent and the statistical analyses are done accurately. Results of factors associated with weight misperception in obese Pakistani adults highlight this issue and possibilities for future research. However, there are some essential points concerning the report that should be answered prior to publication.

Major Compulsory Revisions

1. TITLE
The title should be reconsidered: the content concentrates on the obese adult’s underestimation of their weight. Self-perception of weight has many more aspects, which are not discussed here, such as problems due to overestimation of weight (i.e., disordered eating/eating disorders).

2. ABSTRACT
In general, the abstract did not effectively summarize the study. The text in the
manuscript later on is far more fluent - the abstract needs to be reword.

2a. Abstract, Results
The statement “two-thirds of overweight/obese individuals were males” gives the wrong impression of the impact of gender in the prevalence of being overweight, because there are two times more males (317) than females (176) in the study. If the authors want to present percentages of the overweight/obese, it should be done within genders. Perhaps the authors meant to say that two-thirds of the males in the sample were overweight or obese?

2b. Abstract, conclusion
Do the authors refer to the overweight/obese people who haven’t received weight advice from health professionals when they conclude that “health professionals need to identify people of abnormal weight?” I don’t otherwise quite understand why this is mentioned in the conclusion, especially when the authors study weight perception of individuals. Moreover, it’s a bit old-fashioned to focus on tertiary prevention instead of preventing weight accumulation and maintaining a healthy weight.

3. METHODS
3a. Even though this has been mentioned as a limitation, it should be more clearly stated that the sample was diverse; it’s a nonprobability sample. There were more males than females, a greater number of younger participants than older, two-thirds were highly educated, and 25% of the participants had co-morbidities. The proportions of overweight and obese participants were also relatively high both with respect to the population of Pakistan.

3b. I suggest again that the authors concentrate on obese people’s underestimation of their weight and not even try to make any generalizations on the grounds of this data. It’s important to take into account the characteristics when calculating adjusted odds ratios for factors associated with overweight/obese people’s weight misperception, but I wouldn’t waste space describing characteristics of the study population, which is not representative of the country.

3c. If the authors choose to follow my suggestions, Table 1 should be reconstructed. For example, I don’t find it interesting to know the proportions of overweight/obese and normal-weight participants who don’t know their ideal weight within the group of people who answered so. It would be much more interesting to see what proportion of overweight/obese participants doesn’t know their ideal weight and/or haven’t received any weight advice from health professionals.

4. RESULTS, First paragraph
This is not a representative sample of the country, so why point out that half of those who were happy or didn’t think about their weight and two-thirds of them who knew their ideal weight, were overweight or obese? It just reflects the amount of obese participants in this data. It would also be much more informative
to indicate that 61% of overweight/obese participants were happy with their weight instead of saying that half of the participants who were happy with their weight were overweight/obese.

5. DISCUSSION, Ninth paragraph
Increased awareness of health risks associated with obesity doesn’t necessarily lead to healthier weight levels in high-risk groups. This issue should be discussed further.

6. LIMITATIONS
The results cannot be generalized to apply to the entire Pakistani population. See the reasons above.

7. CONCLUSION
I don’t agree that family physicians and primary care providers have a major role in preventing obesity by screening for obesity. They may have important role in dispensing advice about weight maintenance in the high-risk groups, as the authors say. Awareness of obesity may not lead to successful weight reduction.

Minor Essential Revisions
1. ABSTRACT
1a. Introduction, line 2 onward
I would remove the sentence concerning the motivation to lose weight – it’s not examined here and, in fact, to be motivated to lose weight is an entirely different matter than to be aware of being overweight. Succeeding in controlling weight is even more complicated.

1b. Abstract, Methods
More precise determination of the questionnaire is needed: What sorts of data were collected using the questionnaire? Why do the writers want to mention that the questionnaire was pre-tested? Should it be pre-coded instead?
The following phrases also need adjusting: BMI was used to categorize what? What kind of misperception? Here it is overweight and obese people’s underestimation of weight, isn’t it?

1 c. In general, I suggest more precision in the use of the terms misperception (of weight) and BMI (actual, measured) throughout the manuscript.

2. RESULTS, Second paragraph
Actual BMI should be the actual weight or weight categories based on BMI. Calculating Kappa should be mentioned in the Methods section.

3. DISCUSSION, Second paragraph
I would be very careful when comparing this study to the NHANES study, because of the assorted sample. And, in fact, under one-third is not a similar degree to about half.
Discretionary Revisions

1. INTRODUCTION

1a. Introduction, first paragraph

There is a huge difference in prevalence of being overweight between WHO and Asian standards (males – 19% vs. 56%; females – 26% vs. 67%). Of course it’s due to the differing cut-off points, but some speculation and reasoning could be given, especially when the Asian cut-off points are used in this study.

1b. Introduction, third paragraph

The language of this paragraph should be checked (e.g., “This would help in identifying people at risk for weight perception” – Don’t we all have some kind of opinion?).

2. DISCUSSION

2a. Discussion, Fourth and sixth paragraphs

The discussion - the handling way of the subject - is a bit limited. The authors don’t consider any positive effects of being happy with one’s weight, or negative effects of being unhappy with one’s weight. In addition, there is evidence that being overweight at an older age has some health benefits.

2b. Discussion, Fifth paragraph

Are the results of males (84%) and females (52%) not perceiving themselves obese presented earlier in the text? New results are not usually presented as late as in the Discussion. And does it include all the participants or just overweight/obese by BMI? More specification is needed.

FIGURE 1

Authors should consider if Figure 1 (Self-perception of weight compared to actual weight) is necessary. If they choose to present it, the numbers of normal, overweight and obese participants as well as BMI cut-off points for what is considered overweight and obese should be added, especially when the Asian, not the WHO, definitions have been used.

Minor issues not for publication

Abstract, Results, lines 5-7: Confidence intervals are usually marked with an en-dash (3.4–12.1)

Introduction: Rephrase the following sentences, “…As decreases perception of…” and “…This makes it critical for obese…” and – this one in particular – “…Weight perception being a complex phenomenon and with ….” and “…This would help in identifying people at risk for weight perception.”

Actual weight is not “measured” but instead assessed/evaluated/categorized according to BMI.
Results, last paragraph: “…current weight” (not “weights;” a person has only one weight, not many)

Authors’ contributions, last sentence: spelling mistake “abd” # “and”
Reference 17: “socioecnomic” # “socioeconomic”

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests’ below.