Reviewer's report

Title: UK adults’ implicit and explicit attitudes towards obesity: a cross-sectional study

Version: 3 Date: 21 April 2015

Reviewer: Fiona Kate K Barlow

Reviewer's report:

Major Compulsory Revisions

I think that this paper is much improved. Having said this, there are still a number of concerns I have about the manuscript in its current form. In particular, the theorizing on Page 4 regarding SJT seems to be out of the blue. Why would overweight and obese people be motivated to justify the system? I agree that they might be, but this should be brought out and argued if it is going to be used to justify the hypotheses. Further, many studies have investigated (either as a focal or secondary point) the impact of BMI on anti-fat attitudes (e.g., at the end of last year Alperin et al., 2014, Social Science and Medicine). From my reading of this, it is about a split, with most researchers finding that as weight increases, anti-fat biases decrease (at least explicit ones). In fact, the authors do make reference to past findings that show a low BMI is associated with higher anti-fat attitudes. As such, it seems strange to disregard this, but make a hypothesis for no differences based on a social psych theory that has not really been extended to weight (although the authors may want to give this a crack with a longer intro).

I would also like to see better justification for the study. On page 3 the authors make the case that they are going to look at a broader sample than past work, and also that changes in population weight may have resulted in changes in anti-fat attitudes. They cannot test this, but what they can do is look to have a comprehensive study on weight bias and its relationship with demographic factors in the UK. I think that this point could be brought out more cleanly and unapologetically. They could also highlight that in doing so, the work might guide policy makers and practitioners about where it is particularly important to intervene.

Hypothesis 1 appears to actually be three hypotheses.

The fact that the authors assess both explicit and implicit attitudes, as well as assumptions about the basis of weight is very cool. Again, I think that this should be brought out in the introduction as a strength, and hypotheses formed about these variables.

Throughout the manuscript in general I felt that there was a bit of a lack of clarity. It was hard to keep track of what scale measured what (e.g., Q1 and Q2 etc...), as well as which results were significant and which were not (one of the most interesting findings I think is around the null effect of pretty much everything on
implicit attitudes). I would very much like to see the authors go back and tidy up their method and results section with an eye to improving clarity, flow and comprehensiveness. As an aside, the stats switch between 1 and 2 decimal places. It would be good to be consistent (ideally two decimal places throughout).

To me, the problems with clarity extend into the writing. There are a lot of run on sentences, and sentences that do not really make sense (e.g., page 3, second sentence, should it be: "...IS a less obvious"

Minor Essential Revisions

It is possible that some of the comments that I listed above could be considered minor. I will leave this to the editor's discretion.

In terms of benchmarking the scores against past means (page 8) I was just not sure. Perhaps to demonstrate anti-fat bias scores could be compared against the mid-point? In addition, we do not get any clear evidence that anti-fat bias is increasing from this dataset. It could just be that the sample was different. I think it is sufficient to state throughout that anti-fat bias is evident, and in part explained by gender, BMI and age.

Discretionary Revisions

In the discussion the authors were speculating about the association between beliefs about the controlability of weight and anti-fat attitudes in the different groups. They could easily include a table of correlations, or one split by group, to look at this (as well as some simple moderated regression analyses) if they so chose. It would certainly add to the paper.

Overall, I think that the authors have done a really good job in revising the manuscript. I hope that my suggestions are helpful to them.

**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:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests.