Author’s response to reviews

Title: Body weight dissatisfaction by socioeconomic status among obese, preobese and normal weight women and men: Results of the cross-sectional KORA Augsburg S4 population survey

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Author’s response to reviews: see over
Resubmission of Manuscript (Research article)

Dear Editors, dear Jimmar Dizon,

we hereby resubmit the manuscript “Body weight dissatisfaction by socioeconomic status among obese, preobese and normal weight women and men: Results of the cross-sectional KORA Augsburg S4 population survey” as a Research Article to BMC Public Health. We made the changes the two reviewers suggested point-by-point as documented in the “Letter to reviewers” (see attachment). We hope that these changes have sufficiently taken account of the reviewers' very helpful remarks.

Technically, we have uploaded a “Main manuscript“-file comprising one version of the manuscript which shows all revisions (incl. copyediting by native speaker of English and professional translator) by mark-ups, and one version in which all revisions are accepted (this latter version starts on page 30 of the file).

We look forward to hearing from you.

Sincerely yours

Dr. Thomas von Lengerke and Dr. Andreas Mielck for the KORA Study Group

March 12, 2012
Letter to reviewer Antonio Palmeira (Manuscript-ID 1387630735576615)

Thank you for reviewing our research paper “Body weight dissatisfaction by socio-economic status among obese, preobese and normal weight women and men: Results of the cross-sectional KORA Augsburg S4 population survey”.

According to your recommendations, we have revised our manuscript as follows:

Re 1.1.
We have added the requested information.

Re 1.2.
We have clarified the Results-section of the Abstract as recommended.

Re 2.1.
We have added this argument of Heinberg et al. from the 2001 book chapter (ref. 11).

Re 3.1.
We have provided rationales for including both smoking and alcohol consumption in the section on Covariates, including references.

Re 3.2.

Even though we do have a relatively large sample, stratifications by sex and BMI-group still rather rapidly reduce cell counts. For instance, when cross-tabulating the SES-index variable (quintiles) with the original body weight satisfaction four point-scale within each of the ‘sex by BMI-group’-strata, in five of six cases at least one cell had an expected frequency of < 5, with a range of up to five of 20 cells being affected in the group of men with normal weight. In contrast, using the dichotomized variable no single cell with such an expected frequency occurs, which is what we meant by the notion of “not to jeopardize their robustness” in the paragraph describing the assessment of body weight satisfaction in the section on “Measures”.

However, we do see and appreciate your point, and agree that knowing whether the use of the original four point-scale would lead to different conclusions is of interest to potential readers. Thus, we have conducted a general linear model each for normal weight, preobese and obese women and men, respectively, with the SES-index variable (quintiles) as the fixed factor and all other variables from the logistic regression analyses as covariates (appropriately recoded e.g. in form of dummy variables). Replicating the logistic regression results for women, there were no significant mean differences in four-point dissatisfaction-scale across the five categories of the SES-index. Among men, a similar assertion holds in that there were significant differences in mean dissatisfaction across SES-groups in the obese and the preobese but not in the normal weight group. In contrast analyses, two results were significant that were insignificant in logistic regression: the contrast between SES-category 2 with the lowest SES-category 1 among obese men, and the contrast between middle SES-category 3 with the lowest SES-category 1 among preobese men. As this makes the logistic approach with the dichotomized satisfaction variable a comparably conservative strategy, we now report both the former (in the tables/figures) and, in addition, the results of the models with the four-point scale-variable in the appropriate sections of the text under Methods, Results, and Discussion.

continued on next page
Re 3.3.

Parallel to our response to 3.2., we see and very much appreciate this point. Alas, one of your suggestions to solve this problem – namely to sub-divide the obese group into moderately and severely obese subgroups – was not possible because of cell count problems. For instance, while at least there are N=31 obese women in the highest SES-index group, all but N=10 severely obese women remain within this SES-group. This would critically jeopardize the robustness of findings specific to this severely obese subsample. However, what we now do report are findings specific to the moderately obese subsamples (BMI 30-35) which are based on additional analyses omitting all severely obese participants. In fact, these reveal that while for women, results remain essentially unchanged compared to the analysis scrutinizing the obese group as a whole, results for moderately obese men not only reflect the pattern found for obese men but were even more pronounced. That is, OR’s for the upper four SES-index groups (vs. the lowest SES-group as reference) now were 2.0, 2.0, 4.4 and 5.5 (all significant at p < 0.5, and comparing to 1.6, 2.1, 3.3 and 3.7 in Table 2), and proportions of BWD were (in ascending order by SES) 43%, 61%, 61%, 77% and 79% (vs. 47%, 62%, 67%, 77% and 78% in Figure 1). Thus, including severely obese participants in the obese group does not produce results that are essentially invalid for moderately obese men (i.e. in a sense is a “conservative” test), and omitting the severely obese does not fundamentally change results either. This given, and as we suspect that readers will be interested in the results for all obese adults as well, we now report both: those for obese groups in the tables and figures, and those for the moderately obese only in the appropriate text sections under Methods, Results, and Discussion.

Re 4.1.

As recommended, we have included the information on what bold OR in tables 2-3 represent.
Letter to reviewer Henri Chabrol (Manuscript-ID 1387630735576615)

Thank you for reviewing our research paper “Body weight dissatisfaction by socio-economic status among obese, preobese and normal weight women and men: Results of the cross-sectional KORA Augsburg S4 population survey”.

According to your recommendations, we have revised our manuscript as follows:

Your comment “However, a limitation not indicated by the authors is the absence of measure of perception regarding weight. Awareness of overweight status among men may depend on socio-economic status. Lack of awareness of overweight status among men with low SES may contribute to lower frequency of body dissatisfaction among them. The authors should refer to the internalization of the thin-ideal in the discussion”:

We have added both a full additional limitation in the 2nd paragraph of the Discussion and a clarification in the 4th paragraph of the Discussion in which we now explicitly refer to the internalization of the thin-ideal.

Your comment “Needs some language corrections before being published”:

We have had the paper copyedited by a native speaker of English and professional translator.