Reviewer’s report

Title: The Modified Dental Anxiety Scale: UK population norms in 2008

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Reviewer: Arjen J van Wijk

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Article type: Research
Title: The modified dental anxiety scale: UK population norms in 2008

Standard questions:
1. Is the question posed by the authors well defined?
   Yes
2. Are the methods appropriate and well described?
   Yes/No (see comment 1)
3. Are the data sound?
   Yes/No (see comment 1)
4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
   Yes
5. Are the discussion and conclusions well balanced and adequately supported by the data?
   Yes
6. Are limitations of the work clearly stated?
   Yes/No (see comment 2)
7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?
   Yes
8. Do the title and abstract accurately convey what has been found?
   Yes
9. Is the writing acceptable?
   Yes

General

This manuscript describes a study in which UK population based norm scores for the MDAS are reported. The manuscript is valuable in that it provides clinicians with tabulated percentile scores across gender, age and other demographic
variables (social class, education, and frequency of dental visits). The choice to publish this article in an open access journal ensures that clinicians will be able to find and access the norm scores.

The manuscript is well written and worthy of publication. However, there are a number of issues that deserve attention. I divide these issues below according to the format required by BMC oral health.

Major Compulsory Revisions

1. The most apparent issue with the manuscript is possible selection bias. As the authors report, 5828 people refused, or were unable, to participate, before reaching the sample of 1000 participants on which the norm scores are based. Although the authors also state that “For each an appropriate replacement was called to ensure as representative sample as possible”, it is not clear how an appropriate replacement was determined. In fact, given the random dialing method, it seems unlikely that an appropriate replacement can be found because we do not know in advance which person is being called. Moreover, a replacement is always different from the original participant in that the latter did not participate. The authors should provide the reader with more information in order to be able to judge the severity of possible selection bias. For instance, did the 5828 decliners also consist of people who did not answer their phone? What proportion of people declined directly (no time, not interested, were eating at the time) before being informed about the subject matter, purpose and likely duration? More importantly, what proportion declined after hearing about the subject matter? It is clear that the latter group may differ substantially from the included participants in important ways. In short, the authors should provide some information regarding this issue.

2. The authors correctly discuss the limitations of this study, in terms of using a telephone versus a questionnaire survey, and possible bias as a result of differences in for instance age groups and the availability of a landline telephone versus mobile telephone. However, a useful addition would be information on any differences between being called with questions rather than filling it out ‘anonymously’ using a paper questionnaire. In other words, do the authors have any knowledge of possible bias as a result of this?

Minor Essential Revisions

Table 1 reports mean MDAS scores for different social classes. There is no description in the method section on how this classification is derived.

Reference 17 is submitted for publication. Usually, journals do not permit references to articles that are submitted (only those in press).

Discretionary Revisions

The authors state “This variation is explored in more detail in the multivariate analysis below” (result section). The authors refer (I think) to the multiple logistic regression analysis. As far as I know, multivariate refers to the number of dependent variables. So strictly speaking, multiple (logistic) regression analysis
is a univariate analysis, despite having multiple independent variables.

The following suggestion is optional. The authors report a number of studies that have been performed in the UK concerning MDAS norms. It would be interesting if the authors discuss shortly how the results from the present study relate to the outcomes of those other studies.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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