Reviewer's report

Title: UK population norms for the modified dental anxiety scale with percentile calculator: Adult Dental Health Survey 2009 results

Version: 2 Date: 3 June 2013

Reviewer: Trilby Coolidge

Reviewer's report:

Review of BMC 1373039627904518
Humphris et al. UK population norms for the Modified Dental Anxiety Scale with percentile calculator: Adult Health Survey 2009 results. Revision 1.

The authors have provided additional information in their paper and/or in their reply to the referees’ comments, which helps to clarify numerous aspects of the manuscript. It is particularly helpful to learn that the data were collected from one of a longitudinal series of surveys, which provides the reader with a greater understanding of the context associated with the methodology used (as well as the resulting data). The authors also provide some additional analyses, which are helpful as they enable the reader to think about how these data compare with dental anxiety data reported elsewhere. With some minor corrections, I think that this paper will be acceptable for publication.

Major Compulsory Revisions

1. Page 4, first paragraph: I don’t think that the phrasing “RF and KH insisted that…” is appropriate for a scientific paper. I would suggest something such as: “The Modified Dental Anxiety Scale (MDAS) was included in the 2009 survey, as it has been shown to be a reliable…”

2. Page 7, Sample and procedure. The authors still need to justify the sample size they used. It would be sufficient to say something such as: “Consistent with prior ADHS collections, a two-stage cluster sample…” (assuming that this is true) – this would tell the reader that the sample size was based on the design employed in the previous survey(s) in the series. Also, it would be helpful in this section if the authors similarly stated that the procedures were similar to (or the same as) those employed in the previous surveys. If, on the other hand, they were markedly different, then this should be described.

3. Page 7, end of the second paragraph: The authors state that 11,382 individuals participated, but Table 2 states that there were 10,086 participants.

4. Page 9, first full paragraph: The third, fourth, and fifth items of the MDAS ask about how one is feeling while waiting for the drill, scaling, and injection, not how one is feeling during the receipt of these three experiences.

5. With regards to the procedures, it is still unclear how participants within
households were chosen. For example, were all individuals aged 16 and older who were present invited to participate?

6. Page 10, Ethical issues: The authors still need to state that adults gave consent for themselves and their children, and the children gave assent, as well as how this was done (in writing? Orally?)

7. Page 11, citation for percentile ranks: This is still listed as “#1”, and needs to be corrected.

8. Page 15, Results: Ideally, this section should begin with information about the comparisons between the relatively-large proportion of potential participants who did not participate and those who did. If there is very little information available about the former group, the authors could state this and then provide the results which are currently found on p. 22. (The point is to help the reader calm the doubts raised by the high non-participation rate, so that he/she can read the results which are based on the participants’ data without questioning their generalizability.)

9. Page 16, full paragraph: The authors compare the dental anxiety ratings from the current survey and the 2008 survey. On this page, the mean and SD reported for the current survey is 10.74 and 5.57, while in Table 2 these are reported as 10.65 and 5.55. More importantly, it is not clear what the reported mean and SD values for 2008 refer to, since earlier we read that the 2008 survey did not include the MDAS. This point also applies to the last sentence in this paragraph.

10. Page 18-19, re the relationships between the MDAS and gender, age, and dental visiting: It would be useful to add something about SES here. The authors had noted that there is an overall difference between groups in Table 2 and on p. 16, but it is not clear that the relationship is linear. (For example, those in the long term unemployed/never worked group have lower mean MDAS levels than those in the managerial/professional group, as well as a lower proportion of high dental fear than those in the lower supervisory/technical and semi-routine/routine groups, which seems counterintuitive to the general finding that higher levels of education/SES are associated with lower dental fear.)

11. There are still a few places where the phrasing and/or grammar is awkward. For example, on page 8, third line down, the sentence beginning: “As a consequence of the aim to achieve similar sample size…” is awkward. Similarly, in the same paragraph, 5th sentence, there should be a semi-colon between “households” and “however”. On page 9, 4 lines up from the bottom of the page, “within short period (days)” is awkward. The next sentence needs punctuation between “(households not contactable)” and “all the interviewers…”. -- In general, the authors could benefit by having a colleague read through the manuscript for these kinds of issues.

12. References: As noted in #7 above, there is one reference number in the manuscript which did not get updated. In this revision, on page 4 there is a Reference 12 cited, but the title in the reference list seems odd and I think that
the authors meant to refer to a different paper. Therefore, I would invite the authors to double-check the manuscript and reference list.

I look forward to reading the next revision of this manuscript.

**Level of interest:** An article of importance in its field

**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.