Reviewers report

Title: Associations between dental anxiety, sense of coherence, oral health-related quality of life and health behaviour - a national Swedish cross-sectional survey

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Reviewer: Ulrika Lindmark

Reviewers report:

Comment to the Authors

The manuscript with the title, "Association between dental anxiety, sense of coherence, oral health-related quality of life and health behaviour – a national Swedish cross-sectional survey", is an interesting research area. The manuscript is in general well written with a well-defined purpose. However, there are some clarifications wish is suggested to be made in the manuscript before recommendation for publication.

Major Compulsory Revisions

General comments

1. A central issue in the manuscript is the methodological choice of using the short form of the three instrument measuring Anxiety, the OHIP and more important the SOC. In the discussion section, the authors have some reflection about this. However, I suggest the authors to add some more considerations about methodological limitations using these short forms, including validity and reliability aspects. For example, there is just one earlier research group (Peck et al.) that have used SOC-3-items, but a lot more studies have used the more reliable versions 29- and/or 13-items. For DA, reference from 1990 is used. Hasn’t it been used more and later? As the authors express it “…to keep a questionnaire short to make data collection possible…”, is not enough. More specific comments about this below.

2. I suggest the author to consider when to use the words concept, construct and theory, throughout in the manuscript. Moreover, the method and material section need to be improved. See more in detail below.

Comments based on each section in the manuscript

Abstract

3. I suggest the authors to consider the result part and the conclusion part. There is very little about the results, which is more like a conclusion. The conclusion should be based on the results, not added or complementary information. If words is needed, the background could be shorter.

Keywords

4. These words should be in alphabetic order. A recommendation is to not use
the same words as in the title in order to have a broader search area. Use Mesh-terms if possible.

Background

5. P4, line 73: Shouldn’t it be “several oral health-related outcomes.”? If so, add “oral” in the sentence.

6. P4, line 83: “These concepts…” What does this refer to? Is it referred to the oral health-related outcomes? Please clarify.

7. P4, line 87-88: “…the sense of coherence (SOC) construct.” SOC can either be seen as a concept, including in the salutogenic theory. Also, it can be described as an instrument, measuring an individual’s SOC. In that context, the SOC construct can be described. Based on this, my interpretation is that it should be expressed as “…the sense of coherence (SOC) concept”, and not construct.

8. P5, line 93 and line 96: “According to the theory..” Which theory do the author refer to?

9. P5, line 96: Also, “…a salutogenic concept,…”. As at the page before and above about the words, concept and theory. This is inconsequent. I suggest the authors to discuss what is meant to be written and to be consequent. A concept is one thing and a theory is another.

10. P5, line 98: The letter s is missing in behavior(s)

Material and methods

11. P5, line 112: The second “…was carried out by…” may be another words in order to not be repeated in the same sentence. A suggestions could be “…was made by..”.

Subjects

12. P5-6, line 112-119: In this section, I miss a lot of information. When did the telephone interviews performed? Period? One time or several? Who did the interviews? Was it one or several persons? Are these person(s) use to ask about sensitive questions like some of these are? How was the data collection performed in more detail? Database? How did the person(s) who collected the data handle the data? Confidentiality? How about the ethical aspects for this kind of data collection? I strongly recommend the authors to add some more information about the data collection and ethical aspects on this. The Swedish TNS-SIFO is not known international, and need to be explained more.

13. The sample included 3500 individuals, and the responds rate was 48.7%. How many individuals were offered the interview? If there is information about the non-respondents, this should be added. Please clarify.

Instruments

14. P6-7, line 139-141: Even if the authors refer to an earlier study about the reliability, I suggest the authors to test for Cronbach alpha for this study, as is made for the OHIP. As written before, I suggest the author to consider the choice to use the SOC-3 items as well as the other short forms (OHIP, DA), in the discussion part. Also, analyzing the SOC scale, why have the author used a
score from 0-6 instead for 1-7, as in the original scale? To refer to an earlier study, is not enough.

15. P7, line 162-163: “(less often than every other year,...”). This could be every third year, is that irregular today? Maybe a minor consideration about this in the discussion part.

16. P8, line 176-183: According to the missing items, a reflection is why? The study is based on telephone interview, i.e. a person ask for their answer on each question. Were the questions difficult to answer? Sensitive? Again, I suggest the authors to add a non-response analysis, and also add some reflection about both external and internal non-response in the discussion part.

Results

Dental Anxiety

17. P9, line 208-210: These results about the significance is not clear in the table (Table 1). As a reader, it is difficult to see and understand if the results refer to between the groups or within the group. A suggestion is to add a column, p-value high DA vs low DA.

18. P9, line 210: According to the results about Age, “…and younger…” Was it female and younger in combined or is it refer to the whole group? Please clarify, since this is not obvious and can’t be seen in the table.

SOC/DA

19. P10, line 225-229: This is an interesting result. However, for the reader, I suggest the authors to add in the manuscript, that this data is not shown in the table.

Discussion

20. As suggested before, I miss reflections about ethical considerations.

21. As suggested above, I recommend the authors to reflect on the use of the short versions of the instruments used in this study. I agree that to study the same phenomena with different measurement is often of a value. However, to minimize established scales (as in current study), and compare with studies using the original versions, must be considered in the discussion. Would the authors recommend further studies with these shorter versions instead of the originals? If so, a motivation for that?

22. P13, line 304: “…the theory in three….”. I suggest to change to the word concept, instead of theory.

23. P14, line 328: “This study also…”. What does “This study” refer to? I suggest the author to reformulate this sentence.

24. P15, line 338: “established scales”, based on earlier comments on this, I don’t agree. I recommend the authors to be easier on this assumption.

25. P15, line 352: I think this sentence is more like a final point in the discussion rather than in the conclusions.

Tables
26. P20, Table 1: See earlier comments on recommendation about an extra column to clarify. Moreover, a reader must understand the Tables without reading the text in the manuscript. Sometimes also an extra note about relationships need to be done under the tables.

**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