Reviewer's report

Title: Change in oral impacts on daily performances, OIDP, with increasing age: Testing the evaluative properties of the OIDP inventory using prospective data from Norway and Sweden)

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Reviewer: Anna-Lena Ostberg

Reviewer's report:

GENERAL COMMENTS
This is a timely and well conducted study in a growing research field: oral health related quality of life (OHRQoL). As the authors write, there is a lack of longitudinal studies in the field. As in all scientific studies, there are both pros and cons. The focus is to enlighten the differences *over time and **between two Scandinavian populations in OHRQoL. The second point need to be better attended to in the paper, especially in the discussion. Please see my comments and questions to the authors below.

- Major Compulsory Revisions

ABSTRACT
The methods should include how many included counties and how many participants. The sentences about participation rates might possibly be condensed to one. The conclusion in the abstract and the conclusion in the main text do not correspond.

KEY WORDS
Please consider the MeSH-term “aged”.

INTRODUCTION
As a whole, the introduction underpins the study. However, the differences between the two countries in dental care organization and dental care consumption in the current ages could be clearer to explain why it is interesting to study two neighboring Scandinavian countries. These could be expected to have more similarities than differences regarding these issues.

Specifically:
P3, §1, last sentence: examples of the many benefits?
P3, §2, line 1: “exposure” does not seem to be the right word here.
P3, §2: it is a little obscure why the transition in dental subsidies for young people is mentioned.
P4, §2: is there really a “vast” number of OHRQoL instruments?
P4, §2, second sentence: the references relate to ADULT and elderly populations in Norway, Sweden and Bosnia/Herzegovina. What about “France, UK and many middle- and low income countries”?

METHODS

The methods are well-structured and it is easy to understand what has been done.

Dnr:s for ethical permissions should be given.

Specifically:

P5, §2, line 4-5: which are the “known variability in oral conditions”?

P6, §2, line 5: please insert that the scale was a 4-point Likert one.

The term for negative scores is varying in the paper: negative, worsened, worsening, deteriorated. Please be consistent. What about impaired?

The results call for a concentrated reader - many figures! As a whole, the authors have managed well to be clear in this matter. Some comments:

P9, §1, line 6: please write that the difference in participation rate relate to the follow-up study.

P10, §1: please keep the same sequence when giving series of figures, for instance 1) no change, 2) deterioration 3) improvement.

P10, §1: what is “stable tooth loss”? This might imply that a person can gain more teeth over time.

P11, top: according to the table the range in the effect size in Sweden was 0.1 to 0.4.

P11, §2 and p12, §1: is there a difference in “reported tooth loss” and “experienced tooth loss”? Also, you sometimes write “lost teeth” – is that the same phenomena?

Tables: the traditional sign for statistical significance – “stars”* is used. Mostly ** means p<0.01 and *** means p<0.001. Please clarify!

DISCUSSION

This section is long and should preferably be shortened. There is rather much repeating of results and referring to tables – necessary? Also, please keep together “methods discussion” and “results discussion”.

A number of important points are raised and discussed, this is acknowledged. However, despite the length of the discussion the following is not/too little discussed:

- The validity of questions. For instance, how might the question about “tooth loss” be understood by respondents? Were there any pilot tests or other tests in earlier studies?
- The lack of “objective” (clinical) assessment
The found differences between the two countries. This is discussed rather superficially. The “cultural dimension” mentioned – what can that be in this case? There was a rather big difference in tooth loss between the two countries – reflections? Any idea of the quality of retained teeth?

The rather amazing finding that tooth loss was associated with improved OHRQoL is discussed in terms of pain relief. Did the referred studies (#6 and 8) found that?

P13, line 4: is “older” = “elderly”?

Conclusion: please see under “Abstract” above.

- Minor Essential Revisions

P7, line 2; omit “was” in the beginning of the line.
P7, line 4: omit end of parenthesis.

There are some other similar errors, please scrutinize!

**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 have no competing interests