Reviewer’s report


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Reviewer: Anne Nordrehaug Astrom

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General: A descriptive study considering secular trends in number of remaining teeth across the survey years 1968/69, 1980/81, 1992/93 and 2004/05 and socio-economic differences in number of remaining teeth at each survey year among 38 and 50 year old women is presented. Independent representative samples of the population of 38- and 50 year old women in Gothenburg were drawn at each survey occasion. Totals of 1462 and 1417 women participated in respectively the medical and dental part of the survey at baseline in 1968/69.

I have the following comments to the study in its present format:

1) The aim of the study is differently described in the abstract and in the paper. In the abstract – it seems that also secular trends in socio-economic differences with respect to remaining teeth was a specific aim of the study. The data have not been analyzed accordingly. Only secular trends in remaining teeth is presented whilst at the same time adjusting for socio-economic differences in remaining teeth across the survey years.

2) The number of participants in the survey year 1968/69 is given. However information about the number of participants in the following survey years should also be provided. More information is needed also about the sampling method each survey year. What kind of design was utilized- cluster sampling – one /two stage sample and so on. It is not satisfactory to refer to previous studies for that information.

3) The information regarding non participation at each survey year is also superficial. Information could be presented in a table providing information for each survey year about the number of the studied age groups in the population, number of eligible participants and participation rate. Moreover, information about differences about participants and non participants at each survey year should be detailed and also how information regarding non participants were achieved. Any comparison of socio-demographic characteristics between participants and that of the population? In short – more information regarding the argument of having representative study groups each survey year could be presented.

4) Table 1 and 2- Why not presenting between what years the number of teeth
and socio-demographic characteristics differed statistically significantly?

5) I presume that table 3 presents the bivariate association between socio-economic characteristics and mean number of teeth within each survey year? – please be more clear about this in the survey heading. When independents with more than 2 categories are analyzed – was there any use of post hoc multiple comparison tests?

6) Discussion part – first section line 3- starting with – However, there was still a relationship between fewer teeth and lower social group among the 50 year old women irrespective of the examination year ------ please reformulate and explain this sentence. Is this referring to unadjusted bivariate analyses at each survey year presented in table 3?

7) Sample size of moderate sizes particularly in 1992/1993 is discussed – but information about the actual size was never provided.

8) The repeated cross sectional design of this study should say something about period versus cohort effects

9) In the discussion same importance or weight seems to have been devoted to results emanating from bivariate and multiple variable analyses- for instance “the increase in number of teeth over the study period was most remarkable among 50 years old? This stems from bivariate analyses presented in table 1 with no control for confounding variables. At the same it has been informed that no interaction effects were statistically significant, implying that the time effect upon remaining teeth did not differ statistically significantly between the age groups?

10) Possible biases due to self reported social status should be discussed and whether or not it might be expected that the accuracy of self reports could have changed across time? accurate.

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests: I have no competing interests