Reviewer's report

Title: Prevalence of and Factors Associated with Dental Caries among Institutionalized Residents with Schizophrenia in Taiwan- A Cross-sectional Study

Version: 4 Date: 28 April 2010

Reviewer: Georgios Tsakos

Reviewer's report:

The authors have done a good job in taking into account the comments raised. Despite the general improvement, the following points need to be considered in the revised manuscript (following the numbering of the initial review):

Major Compulsory Revisions

1. The Literature review has been improved and is now more inclusive, however it still needs to be more focused. The authors need to make explicit what are the key points / conclusions of the existing literature and, more importantly, which are the gaps that this study aims to assess.

4. It is not clear why the authors have chosen to categorise their outcome variables according to the respective mean estimates of a national survey on the general population. If the rationale is to try to make inferences to the general population, this is really not appropriate and in any case not relevant as the study refers to an institutionalised sample with schizophrenia, not the general population. By looking at the distribution of the outcome variables in this sample (point 9 of the previous review) it is obvious that the chosen cut-off points are not relevant to these distributions. I have no strong objections to using them, but cannot see any advantage from doing so.

6. The authors have partly addressed this point by avoiding in the revised manuscript the claim that length of stay and “economic status” are socioeconomic indicators. However, there is also the issue about the inappropriateness of the measure on economic status. Economic status was determined according to the type of the wards the schizophrenic patients were hospitalised in. This is a very indirect and rather crude measure of the patient’s ability and willingness to pay and may be influenced by different factors. The new text on the description of the variable (“Economic variable was set as low income and non-low income depending on the income range of the residents, whose admission expenses come from different sources depending on their welfare conditions”) does not seem correct either. Therefore, the appropriateness of the variable on economic status is at least questionable.

11. The Discussion has been improved and some inappropriate statements have been replaced. However, there are also other sentences where the authors attempt inferences to the general population. These do not seem relevant and
should be removed. For example: “Our results demonstrate that differences are likely to exist in the age distribution between the schizophrenic subjects and the general population” (p.14). But how does this link to the objectives of this study? The point here is about the association between age and DMFT in the institutionalised sample of schizophrenic patients, therefore the Discussion should focus on this. Similarly, on p. 15: “The disparity in dental care between schizophrenic patients and the general population is likely due to the different levels of education, income, or stay in the hospital.” Again, it is not possible to make such a claim and the Discussion should be focussed on providing potential explanations for the associations found, not attempting “comparisons” with the general population when in fact this is not well justified.

The following are new points:

16. The objective of the study should be more precise and in this respect suggest the following wording (pp 5-6): This study aims to identify the relationship between the individual socio-demographic characteristics and treatment factors with dental caries indices (i.e., DMFT, care index (CI), and NRT) among a sample of institutionalised residents with schizophrenia in Taiwan.

Minor Essential Revisions

17. The wording on the following text on p. 4 should be made more clear: “Previous studies also provide information on the relationship between the characteristics and oral health of psychiatric patients”. Suggest that there should be more clear description of which characteristics the text refers to; e.g. socio-demographic, treatment factors etc.

18. On p. 7, the authors mention that the explanatory (independent) variables refer to the personal characteristics of the subjects with schizophrenia. This needs to be modified to match the objectives, which refer to socio-demographic characteristics and treatment factors.

19. The Conclusions need to be revised. The first paragraph is a repetition of the results and should not be presented. In addition, the second paragraph refers to “oral health”, while it should really be about dental caries as other clinical measures of oral health were not included in this paper.

Discretionary Revisions

20. While the study had a reasonably good response rate, it is important to inform the reader whether non-respondents were different from the selected sample in basic characteristics. Assuming that such information is available, this would be a welcome addition to the discussion of the paper.

Level of interest: An article whose findings are important to those with closely related research interests

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 declare that I have no competing interests