Reviewer's report

Title: Factors Associated with Worse Oral Health of the Institutionalized Schizophrenic Residents Compared to the General Population in Taiwan

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Reviewer: Alexander Ponizovsky

Reviewer's report:

The study under review explores factors associated with poor dental health in institutionalized patients with schizophrenia in Taiwan. Using data of a previous survey on dental health in the general population as a criterion variable, this study shows that the risk factors for dental health of schizophrenia patients are older age, lower education and economic level, and protracted stay in hospital. The authors discuss their findings in the context of the international literature, and propose possible ways for improving oral health services for such inpatients.

The topic of the paper is important and the results are sound. The unconditional merit of the study is that it includes psychotropic drug treatments in analysis of risk factors for oral and dental health.

At the same time, there are a variety of serious problems regarding methods, presentation of the data, and, mainly, the authors' technical writing skills.

The main concerns are:

1. The introduction is poorly focused, with many repetitions, and must be substantially shortened. The aim of the investigation varies throughout the abstract and text.

2. Methods. Although the study was conducted in 2006, diagnosis of schizophrenia was made according to ICD-9. It requires an explanation, because ICD-10 was introduced in 1993 and since has been used worldwide. There is a non-traditional categorization of marital status into single and non-single categories, with the latter including married along with separated, divorced and widowed subjects. After mean scores, reported standard deviations should follow.

3. Results. The Descriptive Results section should be moved to the Subject section.

4. Discussion. Many new studies on the topic have appeared during the past years, and the literature should be reviewed and references updated (see for review, Sjögren and Nordström, 2000; Rai 2008; Muijen 2008, Ponizovsky et al, 2009; Zusman et al, 2010). The limitations of the study should be emphasized.

5. Finally, the main problem of the manuscript is the low quality of written English, with multiple typos, grammatical, stylistic and spelling errors, which impede perception and understanding.
A few examples:
"When all the above significant predictor variables in the univariate analysis are considered together, however, not only can the multiple logistic models be used to predict the dependent variables, which states whether or not the oral health of schizophrenic subjects is worse than that of the general population in Table 3, but also be used to present the odds ratio, which suggest that the odds of being worse than the criteria of oral health index are increasingly greater than the predicted variables." (p.10);
"The poor oral health of schizophrenic inpatients may instinctively appear to be based on their personal characteristics." (p.3);
"…the intensity of the severity of schizophrenia." (p.2);
" Suspected risk factors were selected based on the associations found in prior studies and on biological plausibility." (p.6);
" …using the Chi-squared tests of independence." (p.8).

The paper requires extensive editing by a native English-speaker.
To attain a publishable quality, the manuscript needs major compulsory revisions.

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

**Quality of written English:** Not suitable for publication unless extensively edited

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

**Declaration of competing interests:**
I declare that I have no competing interests.