Author's response to reviews

Title: Factors associated with dental caries among institutionalized residents with schizophrenia in Taiwan: a cross-sectional study

Authors:

Kuan-Yu Chu (kyc0321@yahoo.com)
Nan-Ping Yang (g880703@ym.edu.tw)
Pesus Chou (pschou@ym.edu.tw)
Hsien-Jane Chiu (chiu8@mail2000.com.tw)
Lin-Yang Chi (chily@ym.edu.tw)

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Author's response to reviews: see over
Dear Prof. Titmus,

Thanks for your letter with the sound message. We appreciate the Editorial Board for useful comments and suggestions. We have substantially revised the manuscript "Factors associated with dental caries among institutionalized residents with schizophrenia in Taiwan- A cross-sectional study" (MS: 8899253593491398) as requested. The important issues raised by Dr. Ponizovsky have been clarified and corrected. We hope the correction of the revised manuscript will meet the requirements of BMC Public Health. Please find the attached file for the revised manuscript.

Sincerely Yours,

Lin-Yang Chi, DDS, PhD
Associated professor
Department of Dentistry
National Yang-Ming University
Taiwan
Response to Dr. Ponizovsky:

1. 

RE: (1) The introduction is poorly focused, with many repetitions, and must be substantially shortened. (2) The aim of the investigation varies throughout the abstract and text.

(1) Thanks for reviewer’s important comment. We have rewritten the Background (Introduction) section to make it short and corrected the errors. (p. 4, paragraph 1-2)

“Factors such as age and the length of stay (LOS) in institutions seem to be associated with the dental caries of psychiatric patients [1-4]. Schizophrenia is the most complex psychiatric disorder that affects mankind; treatment of institutionalized residents, especially those with schizophrenia, takes up a significant part of the health care resource, compared to other psychiatric inpatient groups [5, 6]. However, to date, there has been relatively little research conducted on factors associated with dental caries among this population.

In addition to age and LOS, there were many other possible factors associated with dental caries in patients with schizophrenia. An early study showed that women with schizophrenia were at a higher risk than men in terms of dental caries [1]. In addition, the level of dental caries among patients was related to the severity of their schizophrenia [7, 8]. A treatment factor, the first generation anti-psychotics (FGA), which are part of a wide array of medications used for schizophrenia treatment, may cause profound hypo-salivation by blocking the parasympathetic stimulation of the salivary glands; this
intensifies the progression of caries [8-11].”

(2) Thanks for the reviewer’s valuable comment. We have revised the abstract and text to make the aims consistent. (p. 1, paragraph 1 and p. 5, paragraph 1)

“This study investigates the individual and treatment factors associated with the dental caries indexes among institutionalized residents with schizophrenia in Taiwan.”

“… aiming to investigate the individual and treatment factors associated with dental caries indexes among institutionalized residents with schizophrenia in Taiwan.”

2. Re: Methods. (1) 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. (2) 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.

(1) Thanks for reviewer’s sound suggestions. The basis of disbursement system on National Health Insurance is ICD-9-CM in Taiwan till now (2010). In this study, the criterion of subject selection was based on the main psychiatric diagnosis by psychologists, and the information was obtained from their admission records.

(2) We have modified the categorization of marital status and analyzed the data again. (p. 7, paragraph 3)

“Marital status was stratified into 3 categories: single, married, and separated/divorced/widowed.”
3. **Re: Results. The Descriptive Results section should be moved to the Subject section.**

The Descriptive Results section has been moved to the Subject section of Method as advised. (p. 6, paragraph 2)

“The mean age of the 1,108 institutionalized subjects with schizophrenia was 50.8 years (standard deviation/SD=10.8). Of these, 73% were men. The patients had stayed in hospital for 8.4 years on average (SD=5.7). The mean score of DMFT was 13.9 (SD=8.5), CI 14.3% (SD=26.5), and NRT 17.7 (SD=8.8). “

4. **Re: Discussion. (1) 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). (2)The limitations of the study should be emphasized.**

(1) Thanks for reviewer’s useful suggestions. Those references together with other updated references we found have been cited. (p. 16, 18, 19)

(2) Thanks for the reviewer’s valuable comment. We have added the limitation in the Discussion section as follows: (p. 13, paragraph 3)

“Some limitations of this study should be noted. First, the enrolled subjects were not randomly sampled from all institutionalized residents with schizophrenia in Taiwan. Thus, generalization of the results to populations with different backgrounds may be limited. Second, some potential confounders, e.g. general health condition, smoking habits, and body weight of the subjects, were not considered due to insufficient information [25-27].
5. Re: The paper requires extensive editing by a native English-speaker.

To attain a publishable quality, the manuscript needs major compulsory revisions.

Thanks for review’s suggestion. This revised manuscript had been edited through the advices from the International Science Editing (www.biomedes.co.uk).