Reviewer’s report

Title: Prevalence and relevant factors of halitosis in Chinese subjects: A clinical research

Version: 0 Date: 02 Jan 2019

Reviewer: Lalima Tiwari

Reviewer’s report:

Overall good concept, however this study displays some significant limitations which haven't been appropriately addressed.

1) Although the sample size is adequate, there is an inherent population bias, as the inclusion criteria includes participants that already complain of halitosis. This should be mentioned in the discussion, as risk factors for halitosis that may have been highlighted in this study may also be present in populations who do not complain of halitosis. Ideally, both populations should have been investigated to assess reliable risk factors for halitosis.

2) More detailed specifications are required in methods pertaining to participant preparation for organoleptic testing. There is mention of patients who consumed garlic and onions on the day being excluded - were other odorous foods/drinks considered? e.g coffee, alcohol. Were participants advised to avoid the use of chewing gum, mouth freshener etc on the day of the test? This can impact the outcome of the organoleptic test.

3) Results demonstrated a significant correlation with dry mouth. I would advise the term xerostomia to be used, as this study did not quantitatively measure salivary flow and appropriately assess dry mouth. This is a significant limitation, as salivary gland hypofunction is another risk factor for halitosis and should also be a tested variable. Salivary gland hypofunction has been associated with a change in oral microflora and anaerobic environments, which can further add to halitosis. Furthermore, salivary gland hypofunction can also contribute to thickness of tongue coating (another significant finding from the study).

4) Results indicate that 34.1% were diagnosed with pseudo-halitosis or halitophobia. Please specify how these diagnosis were made as no psychological assessments were made during the study.

5) There is inadequate discussion on established risk factors for halitosis from the literature in the background section.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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