Author’s response to reviews

Title: Assessment of the oral health behavior, knowledge and status among dental and medical undergraduate students: a cross-sectional study

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Author’s response to reviews:

Dear Dr. Cassady-Cain,

We thank you and the reviewers for a constructive evaluation of our manuscript. We appreciate the positive response of the reviewers and have modified the manuscript to address all of their comments as noted below.

Reviewer #1,

Answers to comments:

1. First of all, the reviewer could not understand the novelty of this manuscript. It is unclear that the comparison of oral health-related questionnaires between dental and medical students would actually lead to health promotion. The result of the manuscript might be related to Chinese situation, rather than international situation.

Owing to the high prevalence of oral diseases and the close relationship between oral diseases and systemic diseases, clinicians are expected to known more about oral health and work together with dentists to improve patients’ oral health, especially in China where the ratio of dentists to total population is about 1:10000. Our research, as far as we know, was the first to study the oral health behavior, knowledge and status of Chinese undergraduate dental and medical students. By comparison, we found that 1) dental students had better oral health
knowledge, behavior and status than medical students in the third year, while the first-year dental students only showed an improvement in oral health knowledge when compared with their counterparts. 2) the 3rd-year dental students were better in oral knowledge and behavior than the 1st-year dental students, and compared with 1st-year medical students, the 3rd-year medical students were better in knowledge, but worse in behavior and status (the Table of the direct comparison between year 1 and year 3 is not shown in the manuscript). 3) both of them didn’t reached the desirable level and need to improve in oral health knowledge, behavior and status. Our results provide a new understanding of oral health knowledge, behavior and status among dental and medical students, revealing the worrying situation of oral health-related undergraduate education in dental and medical schools in China, which is significant to Chinese government and educators as they are currently engaged in healthcare reform including education. Thus, our results may help to improve students’ oral health knowledge and consciousness and establish a cooperative model for clinicians and dentists by reform of oral health-related curriculums, and finally lead to health promotion. As we know, the educational mode in dental and medical schools in China is different from those in many other countries, so our results also offer an opportunity for comparison among various countries and educational systems. Finally, we notice that the medical/dental curricula in most countries are similar to those in China, which consist of preclinical study (public courses, basic courses and professional courses) and clinical internship, and some countries have also set up undergraduate medical/dental education (such as Malaysia), so our results are useful for understanding the impact of this type of curriculum design.

2. Please describe the each question and its response (categories) in the Mat & Meth section.

We have rephrased each question and listed its original responses (question 1-4 of the behavior) in the Mat & Meth section for easier comprehension (Methods section, Page 6, Line 116-128).

3. Line 155: "Then, many dental students of year 3 still need to improve their oral health behavior." This sentence is not suitable for the Result section.

Since there is a similar comment in the Discussion section, we decide to delete this sentence (place before deletion: Results section, Page 8, Line 157).

4. Please put the statistical method in the Table.

We have put the statistical method in the legend under every Table and Figure (Results section, Page 9, Line 160; Page 11, Line176; Page 12, Line 192-193).
5. The authors cited reference about oral health knowledge and behavior of dental students or medical students in other countries (ref. 2, 26, 34, 35). Please compare the present results with the other countries.

Since we have already compared our results with those of reference 2 (Discussion section, Page 13, Line 218), we add our discussions about reference 26, 34, 35 (reference 24, 32, 33 now) in the Discussion section (Discussion section, Page13, Line 211-212; Page 15, Line 254-256; Page 15, Line 262-265).

6. There is no description for the limitation of the study.

We have added the strength and limitation of the study (Discussion section, Page 16, Line 273-284).

Reviewer #2

Answers to comments:

Background (Introduction) section,

1. The description of the extent of oral disease might be good in itself. However, I believe it should be reduced because this is not the actual focus of the paper. One paragraph will suffice.

We have reduced it (Introduction section, Page 3-4, Line 66-69; Page 4, Line 71-72).

2. Page 5 Line 102: I don't think that "health promotion is the right term here because according to the World Health Organization health promotion is "the process of enabling people to increase control over, and to improve, their health. It moves beyond a focus on individual behavior towards a wide range of social and environmental interventions". I believe the right choice for your context is "Health Education". This also applies when the term was used on Page 12 Line 238.

Although we believe the latter use of “health promotion” is germane, we have replaced both of them with “health education” to accommodate the reviewer’s suggestion (Introduction section, Page 5, Line 98; Discussion section, Page 14, Line 236).
Methods

1. Page 5 Line 107: please mention why only first and third were chosen for the study.

Both the fresh medical and dental students have not received any oral health-related professional education and training. The dental students may possess higher awareness of oral health and stronger willingness to learn oral-related knowledge than their medical counterparts owing to their different choices of specialties since their pre-university education. By comparison, we can learn the original oral health awareness and uncover the impact of the ordinary awareness induced oral health knowledge on the oral health behavior and status. To some extent, it can reflect the oral health knowledge, behavior and status of undergraduate students and the pre-university oral health-related education in China as they were newly enrolled in universities. In the grade 3, although the dental students have not attended professional courses (arranged in the 4th year), they have received oral disease-related basic research training/experiment courses, oral health instruction and lived under the oral-health-care atmosphere for more than two years. Their increased knowledge and awareness may result in a different oral health behavior from the medical students. Finally, we have added some comments in the Discussion section to show the characteristics of our participants (Discussion section, Page 13, Line 202-208).

Results

1. Page 7 Line 14: please use a more measurable term than "little obvious"

Since we originally used “little obvious difference” to mean “no significant difference”, rather than “little obvious” difference, we have decided to replaced it with “few significant differences” to avoid ambiguity (Results section, Page 7, Line 145).

2. Page 12 Lines 185 and 188: This statements are written as though clinical examination was conducted. Please explain or rephrase to show that this is still self reporting.

We have rephrased the text (Results section, Page 12, Line 187 and 189).

Discussion:

1. Page 12 and 13, Lines 195-211: This is far too long as an introduction to the Discussion. In fact it is not needed here. You could utilize some of this information in the Introduction section in relation to my previous note about the introduction section.
We think it’s necessary to summarize the aim of our study at the beginning of the Discussion section, so we have reduced it to a brief introduction (Discussion section, Page 12, Line 196-201). Furthermore, we have utilized some of the information in the Introduction section (Introduction section, Page 4, Line 73-76).

2. Page 15 Lines 251-263: These details about the periodontal disease-bacteria-system disease relationship seems to be out of context. If you really want to emphasize this relationship, a line or two about it is enough.

Since these details seems not quite related to the topic of this manuscript, we decide to remove this part of information (place before deletion: Discussion section, Page 15, Line 249).

Thank you again for a very constructive evaluation of our work. We hope that the modifications to the paper make it suitable for publication in the Journal of BMC Oral Health.

Kind regards,

Sincerely,

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