Reviewer's report

Title: Awareness, Use, Attitude and Perceived Need for Complementary and Alternative Medicine (CAM) Among Undergraduate Pharmacy Students in Sierra Leone: A cross-sectional Survey

Version: 2  Date: 15 July 2014

Reviewer: Laith Hussain-Alkhateeb

Reviewer's report:

Review for BMC Complementary and Alternative Medicine

'Awareness, Use, Attitude and Perceived Need for Complementary and Alternative Medicine (CAM) Among Undergraduate Pharmacy Students in Sierra Leone: A cross-sectional Survey'

Peter B James and Abdulai J Bah

The authors have presented an interesting topic which is a current public health concern mainly in the African setting. Although, several studies have discussed similar objectives, it remains vital to present such findings for the Sierra Leon country.

The study authors have made a good effort in bring to the reader some interesting results and discussion, however, there are some major, minor and discretionary revisions to be considered. Here is a summary:

Major Compulsory Revisions:

1. Although, good referencing on CAM was quoted on the international level, no facts, figures, past studies/ internationals reports (e.g. WHO review: Legal status of Traditional Medicine and Complementary/ Alternative Medicine) or current traditional medicine act at the national level (Sierra Leon) are presented in this paper, mainly for the “background” section.

2. It is essential to present a study method that can be linked to the proposed objectives. For instance, the study takes into account the age, sex, year of study and religion factors, however, no pre-indications is stated as why these are listed in the method and how it can answer the proposed objectives (e.g. the authors can state: “another goal of the study is to investigate what determine the CAM awareness, attitudes and perception” in terms of background and characteristics)?.

3. The categorization concept of the age group. The author needs to justify the presented form of categorization: i) is the age 15 years old among the participants (University level)? If not then why is it included? ii) The categorization of this variable should be based on a relevant concept and reflects reality. The applied chi-square test is sensitive to the degree of freedom which is likely to be changed if another age-group categories are considered (which is
encouraged); hence different results are likely to appear for this analysis.

4. The paragraph under “Data analysis”, the second sentence needs more clarifications. Did the author aggregate the groups? Where did this happen in the analysis? Also what is the cut-off point for the group allocation (at which scale)?

5. The use of Monte Carlo method? Given the types of the analysed variables and the study objectives, why did the author decide to apply this method? There are several assumptions, requirements and approach with the applied method that needs to be discussed/mentioned (e.g. beside the importance of a larger size analysis, did the author assume the relationship between the project parameters and the function of the project characteristics, which is necessary for this method application? Test for the normality of the data (also for the ANOVA analysis), and how it has been adjusted for the potential confounders)? Why not to consider simpler approach such as “generalized linear regression” or “ordered logistic regression”? It is also necessary to provide relevant interpretation to the generated outcome from the Monte Carlo method (distribution of probable outcome values).

6. Given the study objective is to assess the need for the development of CAM within the School of Pharmacy curriculum, it is important to provide more reasoning/justifications throughout the discussion part? Also it is good to answer some questions such as: What might be the preference of the mode of teaching among students (i.e. systematic fashion or elective and mandatory type of courses)? Which academic year of the program is most appropriate to start/implement the CAM? These are important factors to discuss to influence the integration of CAM (what approach the school of pharmacy should follow). Also how these given preference of teaching might differ across the years of studies. This part takes us back to the study objectives, where a review of how the study method is answering the objectives is to be considered?

7. The conclusion is highly influenced by the currently presented methodology, which needs some revision.

8. I would revise the abstract part, mainly the first portion of the results section.

Minor Essential Revisions

1. The language: there is a need to do a thorough language revision considering grammar (e.g. first sentence of the second paragraph in the introduction), spelling, linking words/sentences mainly when giving new information. The consistency of using some abbreviations like “CAM” for example) and word position/order in the sentence (second graph of the Background for example).

2. It is important to pay good attention to some of the used “terms” and the difference between them such as; “health” and “healthcare”. I think in this paper that author is mainly discussing the role of the healthcare provider, presented by the pharmacist and how he/she would perceive, use and inform about CAM. The term “health” was instead used in the introduction?

3. The structure: there are some occasions where the authors need to consider
re-structuring the sentence or paragraph. For instance, in the first paragraph of the background, I would swap between the second and the third sentences. This way the paragraph develops better coherence. Other examples of potential re-structuring are present in the third sentence of the third paragraph in the background. Similarly the first and sixth sentence in the fourth paragraph.

Discretionary Revisions

1. Again in the background section – first – paragraph, the author may choose to remove the part “...in China and other Southeast Asian countries...” to read better.

2. In general, it is good to aim for shorter sentences rather than the longer ones as observed in few occasions.

3. Within the background part, I would use the term “perceived” of the fifth sentence in the first paragraph with more caution. This term – mainly in the African setting – could relate to some existing myths, superstitions or other superpowers rather than the actual medical value that the CAM intend to do.

4. The third sentence in the fourth paragraph of the Background part, it would be more interesting – instead of the term “most” - to present some percentage or figures of the schools that implement the CAM education.

5. I think it would also be more interesting if the study present the “perceived need of pharmacy students for CAM” by the “years of education” groups beside the currently presented overall percentages. This way it brings more – and probably significant – justification for the mechanism of implementation of the CAM also linking this trend to some other variables could bring additional conclusion?

6. One side finding would be addressed to the university/ academic part of activities – as derived from the discussed findings in the sixth paragraph of the discussion section – to strengthen the scientific literature review, search engine within university students which appears to be beneficial.

Reviewed by: Laith N. Hussain-ALkhateeb

**Level of interest:** An article of importance in its field

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests