Peer Review Report

Review Report on Current Status and influencing factors of snakebite diagnosis and treatment knowledge among medical staff in China: A Cross-sectional Study

Original Article, Int J Public Health

EVALUATION

Q 1 ▸ Please summarize the main findings of the study.

The manuscript carried out a cross-sectional survey to investigate the current status of the knowledge of medical professionals in 12 provinces in China. The study showed that the examined pool of medical professionals has an average score of ~3 out of 5? (to be clarified), suggesting a moderate level of knowledge of snakebite management. The finding suggests there is a need to improve curriculum and training for snakebite management, particularly on the aspects of diagnosis, treatment, and the use of antivenoms.

Q 2 ▸ Please highlight the limitations and strengths.

The study collected a substantial amount of data which is meaningful and serves its novelty. This set of data is essential to support the initiative of improving the current curriculum and training of medical professionals on the knowledge of the management of snakebite envenoming. In general, the study is novel and worth publishing, however, corrections are required to improve the clarity of the manuscript as many parts need further clarification due to the inconsistent and inappropriate use of terminology.

The manuscript has also included the limitations and strength of the work.

Q 3 ▸ Please provide your detailed review report to the authors. The editors prefer to receive your review structured in major and minor comments. Please consider in your review the methods (statistical methods valid and correctly applied (e.g. sample size, choice of test), is the study replicable based on the method description?), results, data interpretation and references. If there are any objective errors, or if the conclusions are not supported, you should detail your concerns.

Some comments and suggestions are as follows:

1. Inconsistency and confusion in the use of terminology were detected throughout the manuscript. For instances:
a. medical staff, medical workers, healthcare workers, or doctors?
b. Expertise score, knowledge score, or score?
c. score of snakebite diagnosis and treatment knowledge, score of knowledge on diagnosis and treatment of snakebites, or snakebite management score?
d. Snakebite, snakebite envenomation/envenoming (more accurate), or snakebite poisoning
e. correct rate, or accuracy rate

2. Line 30-31: The author should provide the total evaluation score when stating the mean score. For instance, "…among medical staff in China was 3.15±2.15 out of a total score of 5??

3. Line 31-34: "…were statistically significant (P< 0.001) and ….". The sentence is not well phrased and hard to understand. Is the author try to say that "….snakebite treatment ability are factors that significantly affects the score of snakebite diagnosis and treatment knowledge / know?

4. Line 40-43: The messages addressed in this sentence is confusing. Please break this sentence into two.

5. Line 59: "adequateknowledge". Please leave a blank between the words.

6. Line 59: "snakebite poisoning" is not commonly used nowadays, please change it to snakebite envenoming/envenomation.

7. Study design: Table 1 briefly classified the data obtained into 3 categories for geopgrahical region involved for this investigation. Since the data was collected from 12 provinces in China, could the author produce a pie chart to illustrate the composition of the data collection?

8. From my point of view, the author obtained substantial meaningful data that could be further interpreted in a more structural manner. The current study design which the analysis does not separate the geographical region prone to misinterpretation and is limited in terms of discussion. This is because medical professionals may possess different levels of knowledge due to the differences in their environment, training opportunities, exposure to risk of bite, available of resources, etc. All these factors have been discussed but in a more superficial way in the manuscript. In brief, the author could shift to focus on analyzing how good the current knowledge of snakebite management among medical professionals in different provinces of China before coming to an overall conclusion. With this, the manuscript can be further expanded to create a more holistic discussion.

a. Firstly, provide a composition on the survey based on geographical region (12 provinces) and their respective knowledge score (number of out 5?). Provide a discussion on their general knowledge based on region.
b. Within each region, analyse the demographic characteristics among the medical professionals (occupation, education, level of hospital etc). With this, authors are able to discuss the observation, analyse the correlation and provide discussion.
c. In overall, the authors could again provide a discussion based on their observation.

9. Line 149: I am uncertain why the value of maximal VIF is lower than minimum VIF?

10. Line 149–167: I am not sure what the "β" means as there is no explanation found in the manuscript.

11. Table 1–4: There aren't footnotes in the tables to provide the description of the data collected. Please kindly insert as per necessary.

12. Table 1:
a. Scores (M±SD) – please elaborate as footnotes. Is the "3.51±2.15" score or the average score? it seems can't fit to the column heading.
b. Occupation: "Other" – can author justify the other category is "other medical profession" or "non-medical professionals".
c. Education: Please replace "less than bachelor" to "Lower than Bachelor"
d. Level of hospital: Please replace "first-class" to "primary"
e. Professional title: can author clarify what is "Elementary"? I don't understand and not sure if this is a suitable word to be used.
f. Knowledge to get antivenom: Can author clarify this statement? Do you mean the way of getting an antivenom for treatment? Or provide a diagnosis to select appropriate antivenom?

13. Table 2 and supplementary Tables to be further refined following the revision.

PLEASE COMMENT

Q 4 **Is the title appropriate, concise, attractive?**

The current title focuses on finding the correlations between the demographic factor with the knowledge of medical professionals, in particular on the diagnosis and treatment of snakebite. In my opinion, I would

suggest the author emphasize more on the current knowledge of snakebite management among medical professionals from 12 provinces of China, in which the same results and discussion could take place.

Title suggestion: "A cross-sectional study on the current knowledge of snakebite management among medical professionals from 12 provinces of China"? The author may modify accordingly as necessary.

Q 5   **Are the keywords appropriate?**

Suggestions of keywords: envenoming, diagnosis, treatment, antivenom, medical practices. Author may consider based on suitability.

Q 6   **Is the English language of sufficient quality?**

There are statements that are hardly understood. I would suggest the manuscript be proofread by a native English speaker for a better clarity.

Q 7   **Is the quality of the figures and tables satisfactory?**

No.

Q 8   **Does the reference list cover the relevant literature adequately and in an unbiased manner?)**

The reference format is not standardized. Improvement is required.

QUALITY ASSESSMENT

Question		Rating (out of 5)
Q 9	Originality	▮▮▮▮▮ (5)
Q 10	Rigor	▮▮▮▮▯ (4)
Q 11	Significance to the field	▮▮▮▮▮ (5)
Q 12	Interest to a general audience	▮▮▮▮▯ (4)
Q 13	Quality of the writing	▮▮▯▯▯ (2)
Q 14	Overall scientific quality of the study	▮▮▮▮▯ (4)

REVISION LEVEL

Q 15   **Please make a recommendation based on your comments:**

Major revisions.