

## Peer Review File

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### Reviewer A

This was a survey study examining knowledge regarding head shape development in children. I found the study interesting and of value.

Comment 1: Survey research can be limited by the inherent design of the survey tool used. I would recommend against the use of the term "head type problems" for a scientific manuscript.

Reply1: Thanks for pointing that out. We appreciate your feedback. In response to your comment, We decided to use "head shape" instead of "head type" for greater clarity.

Changes in the text: We have incorporated these changes in the revised version of the article (see Page 4, line 107-120, page 5 line 121-140; Page 6, line 159, line 168, line 172; Page 8, line 232, line 234, line 238; Page 11, line 303, line 305, line 311, line 321; Page 12, line 332; Page 18, line 527; Page 19, line 529; Page 20, line 561; Page 21, line 572 and 573, and others). Thank you once again for bringing this to our attention.

Comment 2: How did the authors decide to include physicians, nurses and therapists? Why not just specialists and primary care providers? Is there a facet of Chinese healthcare modeling/delivery that we should know about the precluded this decision?

Reply2: Thank you for your insightful comments and questions regarding our choice of participants in our study. I'd like to address your concerns as follows: Our decision to include physicians, nurses, and therapists was based on the premise that these three groups represent the primary frontline healthcare providers in the hospital setting. They are often the first point of contact for patients and play a pivotal role in patient care, making their perspectives invaluable for our study. While specialists and primary care providers are crucial in the healthcare system, our study aimed to capture a broad understanding of head shape problems from those who interact with a diverse patient population on a daily basis. Including only specialists might have narrowed our insights to specific conditions, while primary care providers might not encounter head shape problems as frequently as our chosen groups in a hospital setting. The Chinese healthcare system is diverse and multifaceted. In the context of our study, we focused on the hospital setting, where physicians, nurses, and therapists are the main healthcare providers. Their collective insights provide a comprehensive understanding of head shape problems in this specific environment. It's not so much a facet of Chinese healthcare modeling that precluded our decision, but rather the objective of our study to understand the hospital's perspective. Our choice of these three groups was not based on bias but was a deliberate decision to reflect the real situation in the hospital. We believe that by focusing on these groups, we can gain a holistic understanding of head shape problems as they are encountered in daily hospital operations. I hope this clarifies

our rationale behind the participant selection. We appreciate your feedback and will consider elaborating on this in our revised manuscript to ensure clarity for all readers. Changes in the text: We added “etc., who” in line150. We hope this clarification addresses your concerns and demonstrates the rationale behind our participant selection. If you have any further questions or suggestions, please let us know.

Comment 3: Survey creation is the most difficult aspect of survey research. Did the authors conduct a focus group prior to dispersing the survey? Did an expert panel weigh in on the questions of the survey? More discussion of this is needed in the methods section of the manuscript.

Reply 3: Thank you for your feedback. We agree that survey creation can indeed be challenging and we appreciate your pointing that out. To address your concerns, we would like to clarify that we did indeed engage in a focus group discussion with a panel of experts prior to developing our survey questions. Based on their feedback, we were able to refine our questionnaire to ensure that it was more relevant and reliable. Additionally, we have also included more discussion on this aspect in our Methods section to provide a more transparent understanding of our survey development process. We apologize for any confusion caused and hope that these changes address your concerns.

Changes in the text: Incorporated the additional discussion of the focus group and expert panel feedback on survey creation into the Methods section, see line159-164 in the revised manuscript.

Comment 4: The results are presented well in the tables/text. The discussion would benefit from inclusion about interventions for DP - repositioning, orthosis, etc. Although they did not ask about this (limitation that needs to be mentioned - see below) it is important to discuss this in light of their findings.

Reply4: Thanks for your feedback. Our study’s goal focused on screening and early development of cephalic problems in children and did not address specific treatment modalities, which were assessed and specified by specialists.

Changes in the text: As per your request, the limitation has been added to the Limitations section. Please refer to the end of the revised manuscript for details. (see Page 13, line 380 to Page 14, line 394).

Comment 5: There is no limitations section - must add aspects of survey research limits - questions are limiting, population selection bias, etc.

Reply5: Thank you for your feedback. We appreciate your comments on the limitations of our study, and we agree that the addition of a limitations section is necessary. We have now included a section at the end of the article to address this feedback.

Changes in the text: In the light of reviewers' comments, we have added a new section to address the limitations of our study. Please refer to the end of the revised manuscript for details. (see Page 13, line 380 to Page 14, line 394).

## **Reviewer B**

Comment 1: Title and abstract:

The study design is appropriately indicated. The abstract is informative and provides an adequate summary of the work that was performed.

The title contains a typo. It should read “A Cross-Sectional Study...”.

Reply1: Thank you for your feedback on our article. We appreciate your help in identifying the typo in the title and have made the necessary correction. We apologize for the error and assure you that we have taken care to address it.

Changes in the text: We have corrected spelling mistakes as advised "A Cross-Sectional Study of [Topic]."(see Page 1, line 2)

Comment 2:

Introduction:

Scientific background/rationale for investigation:

The final paragraph in the introduction about China’s rapid development explains the background for the investigation. However, no references are provided for the reader. For example: “Despite a decade of research on infant head shape in China...” should provide references summarizing and detailing the decade of research the authors are describing.

Reply2: Thank you for pointing this out. We apologize for this oversight and have now added references 4 and 13-16 to the decade of research on children's head shape in China as suggested, ensuring that the text now provides accurate and reliable information on this topic.

Changes in the text: We added references 4 and 13-16. (see Page 5, line 132)

Comment 3: Similarly: “Currently, projects related to children's growth, development, vision, and hearing screening are widely implemented.” I would recommend the authors add references to this section to support their claims. At a minimum, specifics about which “projects related to children’s growth” should be included.

Reply3: Thank you for your feedback on our article. We appreciate your suggestion to add references to support the statement about projects related to children's growth, development, vision, and hearing screening. We have added references to programmes such as growth, development, vision and hearing screening in child care in China. We hope that these changes have addressed your concerns.

Changes in the text: Based on the revised manuscript and added references 17-21 (see Page 5, line 135), it appears that the information related to the head shape screening and observation in children's growth and development is more comprehensive.

Comment 4: The rationale for investigation is well characterized given the author’s claims. It is demonstrated to the reader that effective quantification in the disparity of head shape screening and observation will further patient care.

Reply4: Thank you for your positive feedback on our investigation rationale. You have

confirmed that the reasons for our investigation were clearly stated and effectively demonstrated the importance of effective quantification in head shape screening and observation to further patient care. We appreciate your feedback and support.

Changes in the text: No.

Comment 5: Specific objective and hypothesis for study:

The objective of this study is clear—to gather more information about the knowledge base within Chinese medical staff on head shape anomalies. The hypothesis implied is that there is not adequate knowledge of head shape problems in pediatric patients within the Chinese healthcare system.

Reply5: Yes, you are correct in pointing out that the objective of our study is to gather more information on the knowledge base of Chinese medical staff regarding head shape anomalies. Our hypothesis is that there is inadequate knowledge of head shape problems in pediatric patients within the Chinese healthcare system. Thank you for your feedback and affirmation, and we recognize that our study serves to validate this hypothesis.

Changes in the text: No.

Comment 6: Methods:

Study design

The method of participant selection is well detailed and motivated. The survey details are described appropriately. However, there is an error in line 130. The authors state that the questionnaire has four themes, but only listed three themes (a, b, c on lines 131, 133, and 136, respectively). Please correct this sentence to read “three themes”.

Reply6: Thank you for pointing out the error in our method section. We apologize for this oversight and have made the correction to "three themes" on page 6, line 167. We appreciate your feedback and hope that this correction has addressed your concern.

Changes in the text: We have changed to "three themes" as advised (see Page 6, line 165).

Comment 7: Setting:

The timeline, locations, periods, etc. are discussed within the results section.

Reply7: Yes. Thank you for your affirmation.

Changes in the text: No.

Comment 8: Participants:

As stated above, the participants are well detailed under the subheading “Participants”.

Variables:

The questions within the survey are generally detailed within this section. But the specific questions are included within the tables (Table 3, Table 4, Appendix 1).

Reply8: Thank you for your positive feedback. As stated above, we appreciate your positive affirmation of our subheading “Participants” and the variables in the survey. We are glad to see that you feel our discussion of the questions within the survey is

generally detailed. We have included the specific questions within the tables (Table 3, Table 4, Appendix 1) to ensure comprehension and transparency. We believe that these tables provide readers with a clear understanding of the questions and their corresponding answers.

Changes in the text: No.

Comment 9: Data sources:

Sources of the data are specifically described within the results found in Table 1. Specific hospitals and medical institutions are not reported, but the authors detail the nature of the hospital and work unit of each responder.

Reply9: Thank you for your comment. Yes, we detail the nature of the hospital and work unit of each responder in Table 1.

Changes in the text: No.

Comment 10: Bias:

There is no explicit mention of bias within this work. By surveying a diverse range of medical professionals, the authors seemed to have mitigated bias as much as possible.

Reply10: Thank you for your feedback. We value the reviewer's comments and are happy to address any concerns regarding the proportion of staff in primary hospitals, which is 7.94%. This is a deviation from the population selection.

Changes in the text: We explain the limitations of this study at the end of the text. (see Page 13, line 380 to Page 14, line 394).

Comment 11: Study size:

N/A

Quantitative variables:

N/A

Statistical Methods:

The statistical methods utilized seem appropriate for this study. I would strongly suggest that the authors specifically mention which statistical test was used to calculate the P-values in Table 4 and Appendix 1 within the table captions themselves.

Reply11: Thank you for your comment. We appreciate the reviewer's feedback and have added the statistical methods for P values in Table 4 and Schedule 1.

Changes in the text: We have added the statistical ANOVA methods for P values in Table 4 (see page 20, line 562 to 564) and Schedule 1 (see page 22, line 574). Additionally, the Statistical Analysis section in the revised text has been updated (see page 7, line 183-189). If there are any further changes or additions required, please let us know.

Comment 12: Results:

Participants:

Participants are adequately detailed within the results. One participant who responded to the survey as an error was excluded.

Descriptive data:

Described within the results of Table 1. There are few respondents from Community Hospitals, most are from intermediate or senior hospitals.

Reply12: Yes. In our data, 7.94% of respondents came from community hospitals, and most respondents were from intermediate and senior hospitals, and we have added the limitations of the article at the end of the article.

Changes in the text: We explain the limitations of this study at the end of the text. (see Page 13, line 380 to Page 14, line 394).

Comment 13: Outcome data:

The results are detailed in the provided tables and referenced within the text.

Discussion:

Key Results:

The authors are missing key references to research done on the occurrence and correction of head shape problems. This sentence: “The critical period for the occurrence and correction of head shape problems is within the first 6 months after birth...” is not universally true. There are many cases in which surgery is not performed before 6 months of birth and, in general, the decision of when to perform surgery is up to the expertise of the surgeons. I would recommend the following work for more information:

I. M. J. Mathijssen, “Updated Guideline on Treatment and Management of Craniosynostosis,” *Journal of Craniofacial Surgery*, vol. 32, no. 1, pp. 371–450, Jan. 2021, doi: 10.1097/SCS.0000000000007035.

Reply13: Thank you for your feedback. We carefully studied the appeal literature and agree that there is some inaccuracy in our statement. Posture correction and some special types of minimally invasive surgery are best performed before 6 months, while head correction in conventional surgery is generally before the age of 1.5 years.

Changes in the text: We have made the following changes to address the reviewer's comments:

We have modified the text as advised, incorporating the recommended reference and modifying our statement regarding the timing of surgery to reflect the age range of 6 months to 1.5 years. (see Page 9, lines 261-263).

We have also included the recommended reference in our reference list. (See Reference 23).

We hope these changes address your concerns and we apologize for any initial omissions or errors. We trust these modifications have improved the quality of our work and its accordance with the literature. Once again, thank you for your valuable feedback.

Comment 14: The authors go on to motivate the need for early screening and intervention in mainland China, which I believe is their thesis point. This is well motivated and appropriately described. However, there is no mention of the lack of respondents from Primary Hospitals (17, 7.94%). I believe that is difficult to make conclusions about the ineffective screening at these hospitals with such a low number of respondents (lines 294-296). I would highly recommend the authors acknowledge

the lack of respondents from the Primary Hospital group within the discussion to give the reader key context about the claims the authors are making.

Reply14: Thank you for your response. Yes, there are limitations to this study. The proportion of staff in primary hospitals is 7.94 %, which is a deviation of population selection.

Changes in the text: We have added the limitations of this study at the end of the text. (see Page 13, line 380 to Page 14, line 394).

Comment 15: Conclusion:

The conclusion effectively wraps up the main findings of this work. The conclusion is general and gives appropriate recommendations for Chinese medical staff. There is no mention of how these goals will be accomplished, it seems that is out of scope for the authors.

Reply15: Yes, our survey found that Chinese pediatric medical workers are strongly eager to learn about baby head shape. In terms of knowledge of infant head shape, respondents in primary hospitals had less knowledge than those in intermediate and senior hospitals. Our findings provide guidance for governments to designate child primary care policies, but developing policies is beyond the authors' competence.

Changes in the text: No.