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OPEN PEER REVIEW

Association between Thoracic Kyphosis and Forward Head Posture in Teenagers: An Analytical Cross-Sectional Study

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About this report

This open peer review (OPR) report shows the public comments made on this article during peer review, by the reviewers, the associate editor and the editor-in-chief, for every revision round, together with the authors' replies. Comments appear only with the consent of the people who wrote them. Reviewers who chose to sign their report are named; the others are shown as "Referee". Comments are edited for language only, and confidential remarks to the editors are not included.

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1 Original submission

3 comments · 13 Jan 2023 – 17 Jan 2023

Referee 1 Reviewer

MINOR REVISION 13 Jan 2023

“analytical observational-type research”: Do you mean “analytical cross sectional”? If yes, change it.
Musculoskeletal and neurological disorders were not considered in the exclusion criteria?
“head antepulsion”: Replace it with another word.
For measurement tools, the model, the name of the company and the country of manufacture must be mentioned.
" flexible curve": Do you mean flexible ruler? If yes, change it.
D12 vertebrae: T12?
How was C7 found?

Associate Editor

MINOR REVISION 17 Jan 2023

The article needs revision.

Editor-in-Chief

MAJOR REVISION 17 Jan 2023

Dear Authors
According to the reviewers’ and associate editor’s comments, your article requires major revision. When revising your manuscript, please consider all issues mentioned in the reviewers' comments carefully: please outline every change made in response to their comments. Please also clarify the innovation and necessity of doing this research in the introduction section.

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Revision 1

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

Reviewer 1:

Question 1: Type of study was not mentioned in the title.

Reply 1: We have revised the title to indicate the type of study. The new title of the manuscript is now "Association between Thoracic Kyphosis and Forward Head Posture in Teenagers: An Analytical Cross-Sectional Study."

Question 2: "The results indicate that there is a 15% greater probability of developing a craniovertebral angle per year. Thus, the students who suffered from backache were 36% less likely to also suffer from forward head posture." These statements are literally ambiguous.

Reply 2: In response to the ambiguity noted in our results section, we have reworded these sentences for clarity. The revised text now reads, "Age exhibited a significant association with forward head posture (aPR=1.15, p=0.005), and students who reported backache had lower prevalence of the same (aPR=0.64, p=0.025)."

Question 3: There are two sets of keywords in the study. Please consider the differences and insert Thoracic kyphosis.

Reply 3: As per the third point from the reviewer, we have revised our keyword list to better reflect the content of our study and have included "Thoracic kyphosis" as suggested. The keywords are now: Thoracic kyphosis; Forward head posture; Teenagers; Analytical cross-sectional study; Spinal disorders; Posture analysis.

Question 4: In the procedure section, please change D12 to T12.

Reply 4: As recommended by the reviewer's fourth point, we have replaced "D12" with "T12" in the procedure section of the manuscript.

We deeply appreciate the reviewer's suggestions and are confident that the revisions made sufficiently address their concerns. We believe the changes have significantly improved the clarity and precision of our manuscript.

Reviewer 2:

Question: The article has not challenged a new issue. In the pasteur category, there are several articles with strong methodologies that have investigated the relationship between FHP and other spinal abnormalities, upper limb joint range of motion, muscle strength, and their shortness. In the field of students, there are many articles that not only these factors and their relationship with each other, but also their relationship with the weight of the backpack that students carry, the hours of using media, laptops and smartphones, the hours of sitting on school seats, level of physical activities, and even nutritional issues and economic factors of the family have also been examined. It seems that the author of the article in the introduction section should justify the reader much more strongly with the necessity of doing this research. The innovation and necessity of doing this research is not clear.

Reply: We highly appreciate your comment, and we have revised the introduction to provide a stronger justification for the necessity of our

research in light of the existing literature. At the end of the introduction, we have included the following paragraph to address this concern:

"Despite the wealth of research on forward head posture and other spinal abnormalities (1-6,8,11), there remains a significant gap in the literature concerning the specific association between thoracic kyphosis and forward head posture in adolescents. This under-researched area is of critical importance as adolescence is a pivotal period in postural development, and early interventions can mitigate progression to chronic musculoskeletal problems. Consequently, the assumption that an increase in the angle of thoracic kyphosis correlates with a heightened forward head posture, as expressed through the craniovertebral angle, merits rigorous investigation."

We believe that these revisions, particularly the addition of this paragraph at the end of the introduction, address your concerns and provide a clearer rationale for the necessity and innovation of our research.

Reviewer 3:

Question 1: "Analytical observational-type research" - Do you mean "analytical cross-sectional"? If yes, please make the change.

Reply 1: We apologize for the confusion. The correct term should indeed be "analytical cross-sectional research" instead of "analytical observational-type research." We have made the necessary revision in the manuscript.

Question 2: Musculoskeletal and neurological disorders were not considered in the exclusion criteria.

Reply 2: We have addressed the exclusion criteria in our revised manuscript, and musculoskeletal and neurological disorders were indeed considered.

Question 3: "Head antepulsion" - Replace it with another word.

Reply 3: We have replaced the term "head antepulsion" with a more appropriate term, which is "forward head posture."

Question 4: For measurement tools, the model, name of the company, and country of manufacture must be mentioned.

Reply 4: Thank you for emphasizing the importance of mentioning the model, name of the company, and country of manufacture for the measurement tools. We have now included this information in the relevant section of the manuscript.

Question 5: "Flexible curve" - Do you mean flexible ruler? If yes, please make the change.

Reply 5: We have made the necessary change from "flexible curve" to "flexible ruler" to ensure clarity and accuracy in describing the measurement tool

Question 6: D12 vertebrae T12?

Reply 6: We apologize for the error in referring to D12 as T12. We have corrected this mistake in the manuscript.

Question 7: How was C7 found?

Reply 7: The C7 spinous process was identified through palpation in the posterior midline of the neck. We have provided additional clarification on this in the relevant section of the manuscript.

Once again, we sincerely appreciate your thorough review and valuable suggestions. Your feedback has significantly improved the quality of our manuscript. If you have any further comments or concerns, please do not hesitate to let us know.

2 Revision 1

3 comments · 26 Jun 2023 – 2 Jul 2023

Referee 1 Reviewer

MINOR REVISION 26 Jun 2023

Please correct the keywords based on the MeSH Database (https://www.ncbi.nlm.nih.gov/mesh/) and delete Analytical cross-sectional study.

Associate Editor

MINOR REVISION 2 Jul 2023

Keywords must be corrected.

Editor-in-Chief

MINOR REVISION 2 Jul 2023

Dear Authors
According to the reviewers' and associate editor's comments, your article needs minor revision. When revising your manuscript, please consider all issues mentioned in the reviewers' comments carefully: please outline every change made in response to their comments and submit the required files.

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Revision 2

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

Reviewer 2

Question 1: Please correct the keywords based on MeSH Database and delete "Analytical cross-sectional study".

Reply 1: Thank you for your feedback. We have made the necessary changes to the keywords based on the MeSH Database. The revised keywords are as follows: Keywords: Adolescent; Head; Kyphosis; Posture. We have also removed the phrase "Analytical cross-sectional study" from the manuscript.

Editor Associate 1

Question 1: Keywords must be corrected.

Reply 1: Thank you for your comment. We have revised the keywords as per the MeSH Database and made the necessary corrections. The revised keywords are as follows: Keywords: Adolescent; Head; Kyphosis; Posture. We apologize for the oversight and appreciate your attention to detail.

3 Revision 2

2 comments · 8 Jul 2023 – 9 Jul 2023

Associate Editor

ACCEPT 8 Jul 2023

It is accepted.

Editor-in-Chief

ACCEPT 9 Jul 2023

Dear Authors,
We are pleased to inform you that your article is accepted for publication in the MEJRHS. We hope to receive other qualified articles from your group.