

Socioeconomic status and injury history in adolescent athletes: lower family affluence is associated with a history of concussion

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1st Editorial decision

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Journal of Clinical and Translational Research

Dear author(s),

Reviewers have submitted their critical appraisal of your paper. The reviewers' comments are appended below. Based on their comments and evaluation by the editorial board, your work was FOUND SUITABLE FOR PUBLICATION AFTER MINOR REVISION.

If you decide to revise the work, please itemize the reviewers' comments and provide a point-by-point response to every comment. An exemplary rebuttal letter can be found on at <http://www.jctres.com/en/author-guidelines/> under "Manuscript preparation." Also, please use the track changes function in the original document so that the reviewers can easily verify your responses.

Your revision is due by Jul 12, 2022.

To submit a revision, go to <https://www.editorialmanager.com/jctres/> and log in as an Author. You will see a menu item call Submission Needing Revision. You will find your submission

record there.

Finally, I deeply apologize for the mismanagement of your manuscript, as a result of which the rendering of the decision has taken an unacceptable amount of time. This is entirely my fault, where I allowed the initially assigned reviewer at Harvard University to overpromise and not deliver. After that, the manuscript got stuck in the rising backlog and exited my radar. I am terribly sorry about that.

Yours sincerely,

Michal Heger
Editor-in-Chief
Journal of Clinical and Translational Research

Reviewers' comments:

Reviewer #2: Dear authors -

After careful consideration, I am recommending minor revisions to the article prior to publishing and these are outlined below:

Introduction:

P3, L-59: the statements that SES has not be examined in concussion and concussion history is not completely accurate. Racial differences, especially on cognitive tests, are susceptible to performance differences at baseline and/or post-injury. For a few examples, please see Norheim et al 2018 PMID: 30167321, Wallace et al 2018 PMID: 29098599, Recrode et al PMID: 31578879. While these are mainly situated in cognitive areas, it is important to acknowledge that at baseline many individuals from a lower SES may have reduce cognitive capacity.

P4, L-69-70: the aspect that heavily supports your line of research can tie directly into athletic training care. I personally would like to see this expanded to highlight the critical role of these professionals in mitigating secondary injury.

Methods:

P6, L-110-111: if race was recorded, it could be a very interesting factor to include and examine further. Since no cognitive exams were given, I feel it is not critical but interesting if the data are present.

P8, L-156: how many regressions models were constructed? Given the journals readership, it would be appreciated to give each model or models created to understand the finite elements of each equation.

Discussion:

P9, L-197: I struggle with the wording "..and/or management.." as the study did not include any details nor ask about management of the concussion. It can be inferred as lower SES have less access the health care but that was not the overall intention of the study. I would suggest removing that statement as it was not including in the hypothesis.

P10, L-204: Generally bike helmets reduce the overall blow to the head but don't reduce head injuries. I would suggest elaborating or deleting that inference.

Authors' response

Manuscript ID: JCTRes-D-21-00087

Manuscript Title: Socioeconomic status and injury history in adolescent athletes: lower family affluence is associated with a history of concussion

We thank the reviewers for their helpful comments and critiques on our manuscript submitted to Journal of Clinical and Translational Research. We appreciate each comment and believe that through this process, our paper has improved substantially. We have revised our manuscript in response to the questions and comments. All changes within the revised manuscript have been noted using highlighted text, with quotes below, as appropriate.

Introduction:

P3, L-59: the statements that SES has not be examined in concussion and concussion history is not completely accurate. Racial differences, especially on cognitive tests, are susceptible to performance differences at baseline and/or post-injury. For a few examples, please see Norheim et al 2018 PMID: 30167321, Wallace et al 2018 PMID: 29098599, Recrode et al PMID: 31578879. While these are mainly situated in cognitive areas, it is important to acknowledge that at baseline many individuals from a lower SES may have reduce cognitive capacity.

Author Response: We appreciate the reviewer's insight related to additional literature to include. We have added a comment on neurocognitive testing disparities after discussion on concussion knowledge in the revised introduction.

P3, L53-54: "Disparities in baseline neurocognitive testing has been noted based on race and socioeconomic status."¹⁴⁻¹⁷

P4, L-69-70: the aspect that heavily supports your line of research can tie directly into athletic training care. I personally would like to see this expanded to highlight the critical role of these professionals in mitigating secondary injury.

Author Response: The authors agree athletic training staff are integral in recognizing, diagnosing, preventing, and managing injury. Our intention was to include several references highlighting these studied benefits for our readers. Since our patient population had equal access to athletic training staff as they were all University supported schools, we elected not to further elaborate on this in the introduction. We have commented on this in our discussion.

P10, L211-214: "Students had full-time access to athletic trainers during practices and games and access to physicians during athletic training room visits, which likely resulted in little variability in access to appropriate medical care."

Methods:

P6, L-110-111: if race was recorded, it could be a very interesting factor to include and

examine further. Since no cognitive exams were given, I feel it is not critical but interesting if the data are present.

Author Response: We appreciate your insight on this. The authors agree that race demographic information would be very helpful to further subcategorize our findings. Unfortunately, the data was not collected. The survey has been revised to be included on future preparticipation evaluation questionnaires. We have commented on this aspect in our limitations.

P12, L254-257: “Finally, we did not collect demographic information to enable us to analyze the well-documented intersections between race and socioeconomic status⁴² or the effect of race or racism on health outcomes including concussion.⁴³”

P8, L-156: how many regressions models were constructed? Given the journals readership, it would be appreciated to give each model or models created to understand the finite elements of each equation.

Author Response: We see the confusion in our original manuscript and appreciate the reviewer pointing this out (we used the plural “regression models” in the original submission).

We have revised to clarify that we constructed only one logistic regression model. In this, the outcome variable was concussion history (yes/no), and the predictor variables included FAS score, free/reduced lunch rate, age, and musculoskeletal injury history. We have clarified this on P8, L151-158.

Discussion:

P9, L-197: I struggle with the wording “..and/or management..” as the study did not include any details nor ask about management of the concussion. It can be inferred as lower SES have less access the health care but that was not the overall intention of the study. I would suggest removing that statement as it was not including in the hypothesis.

Author Response: We agree this was not the focus of the study. The wording was removed from this paragraph. Later in our discussion, we also comment on how additional research on disparities in management would be beneficial.

P11, L218-222: “Limited relevant literature suggests socioeconomic disparities in the management of severe traumatic brain injuries³⁸⁻⁴⁰ and indicates that insurance status is associated with duration of time away from school in adolescents with concussion.¹² It would be beneficial to further research the management of concussion based on socioeconomic status.”

P10, L-204: Generally bike helmets reduce the overall blow to the head but don't reduce head injuries. I would suggest elaborating or deleting that inference.

Author Response: We agree that bike helmets have not been shown to consistently decrease concussion risk. We have replaced the original statement with a revised statement.

P10, L195-197: “It is also plausible that concussions could have been sustained outside of a school setting where lack of supervision, unsafe play practices, or unsafe play location could be contributing factors.”:

2nd Editorial decision
21-Jun-2022

Ref.: Ms. No. JCTRes-D-21-00087R1

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Journal of Clinical and Translational Research

Dear authors,

I am pleased to inform you that your manuscript has been accepted for publication in the Journal of Clinical and Translational Research.

You will receive the proofs of your article shortly, which we kindly ask you to thoroughly review for any errors.

Thank you for submitting your work to JCTR.

Kindest regards,

Michal Heger
Editor-in-Chief
Journal of Clinical and Translational Research

Comments from the editors and reviewers: