



Letter to Editor

## Methodological concerns in the study of musculoskeletal disorders and stress among smartphone eSports athletes

Aakanksha Bajpai, MPT Cardiopulmonary<sup>1</sup>

<sup>1</sup>Department of Physiotherapy, School of Health Sciences, Chhatrapati Shahu Ji Maharaj University, Kanpur, Uttar Pradesh, India.

**\*Corresponding author:**

Aakanksha Bajpai,  
Department of Physiotherapy,  
School of Health Sciences,  
Chhatrapati Shahu Ji Maharaj  
University, Kanpur, Uttar  
Pradesh, India.

[bajpaiaakanksha4@gmail.com](mailto:bajpaiaakanksha4@gmail.com)

Received: 20 July 2024  
Accepted: 16 August 2024  
Epub ahead of print: 13 September 2024  
Published:

DOI  
10.25259/JMSR\_293\_2024

**Quick Response Code:**



Dear Editor,

I read with great interest the article “Musculoskeletal Disorders, Perceived Stress, and Ergonomic Risk Factors Among Smartphone eSports Athletes: A Cross-Sectional Study,” which was recently published on June 12, 2024, in the Journal of Musculoskeletal Surgery and Research.<sup>[1]</sup> While the study addresses a critical and timely topic, several methodological concerns warrant attention, and I am writing to provide constructive feedback.

First, the authors assert that mobile eSports players predominantly maintain a forward head posture, making them more prone to musculoskeletal issues such as neck stiffness and backache. However, this claim needs appropriate references to support it. It is essential to provide citations from relevant literature to substantiate such statements, as this would strengthen the argument and provide a basis for comparison with existing research.

Moreover, as described by the authors, the sample size calculation utilized Cochran’s formula with a 95% confidence level and an 8% margin of error, resulting in an original sample size of 150. The authors then adjusted this to 158 to account for a 5% anticipated non-response rate. However, there is no mention of previous studies or empirical data used to inform the parameters of this calculation. Justification for the chosen confidence level, margin of error, and expected non-response rate should be based on prior research or pilot studies to ensure the appropriateness and accuracy of the sample size determination.<sup>[2]</sup>

The study’s inclusion criteria do not cover athletes who have had any sports injuries in the past six months, which might influence their posture. In addition, it is important to highlight that athletes with skeletal problems, such as scoliosis, are also not included. They should be excluded from the study.

The authors mentioned that they “used a pre-inclusion screening questionnaire to identify individuals who satisfied the inclusion requirements.” However, no information or data are provided about the validation of this questionnaire. Furthermore, it was unclear if the authors excluded some participants; a flowchart is required to clarify this.

Addressing these issues in future research will improve the reliability and validity of findings in this important area of study.

**How to cite this article:** Bajpai A. Methodological concerns in the study of musculoskeletal disorders and stress among smartphone eSports athletes. J Musculoskelet Surg Res. doi: 10.25259/JMSR\_293\_2024

## **AUTHOR'S CONTRIBUTION**

AB designed this letter, provided the data material, interpreted the data, wrote the initial and final manuscript, and reviewed the literature. AB has critically reviewed the final draft and is responsible for the manuscript's content and similarity index.

## **ETHICAL APPROVAL**

Institutional Review Board approval is not required.

## **DECLARATION OF PATIENT CONSENT**

Patient's consent is not required as there are no patients in this study.

## **USE OF ARTIFICIAL INTELLIGENCE (AI)-ASSISTED TECHNOLOGY FOR MANUSCRIPT PREPARATION**

The authors confirm that there was no use of artificial intelligence (AI)-assisted technology for assisting in the writing or editing of the manuscript and no images were manipulated using AI.

## **CONFLICTS OF INTEREST**

There are no conflicting relationships or activities.

## **FINANCIAL SUPPORT AND SPONSORSHIP**

This study did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

The authors of the original article (Khan M, Chaikumarn M) were given the chance to respond, but they did not respond.

## **REFERENCES**

1. Khan M, Chaikumarn M. Musculoskeletal disorders, perceived stress, and ergonomic risk factors among smartphone eSports athletes: A cross-sectional study. *J Musculoskelet Surg Res* 2024;8:247-55.
2. Sharma SK, Mudgal SK, Thakur K, Gaur R. How to calculate sample size for observational and experimental nursing research studies. *Natl J Physiol Pharm Pharmacol* 2020; 10:1-8.