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Moderate and Vigorous Physical Activity as a Protective Factor Against Anxiety in University Students

Roxana Abril. Morales-Beltrán¹, Germán. Hernández-Cruz², Diana Korinna. Zazueta-Beltrán¹, Roberto Andrés. González-Fimbres³, Luis Felipe. Reynoso-Sánchez^{4*}

¹ Department of Social Science and Humanities, Autonomous University of Occident, 81223, Los Mochis, Sinaloa, Mexico

² Faculty of Sport Organization, Autonomous University of Nuevo Leon, 66455, San Nicolas de los Garza, Nuevo Leon, Mexico

³ School of Physical Education and Excercise Science, State University of Sonora, 83100, Hermosillo, Sonora, Mexico

⁴ Research Center of Physical Culture Sciences for Health and Sport, Autonomous University of Occident, 80014, Culiacan, Sinaloa, Mexico; Faculty of Psychology, Autonomous University of Nuevo Leon, 64460, Monterrey, Nuevo Leon, México

* Corresponding author email address: felipe.reynoso@uadeo.mx

Editor	Reviewers
Karim Chamari Tunisian Research Laboratory "Sports Performance Optimization" National Center of Medicine and Sciences in Sports (CNMSS), Tunis, Tunisia pademil@hotmail.com	Reviewer 1: Yaghub Badriazarin Associate Professor of Sport Sciences, Tabriz University, Tabriz, Iran. Email: badriazarin@tbzmed.ac.ir Reviewer 2: Masoud Mirmoezi Department of Physical Education and Sport Sciences, Islamic Azad University, Central Tehran Branch, Tehran, Iran. Email: massoudmirmoezi@live.com

1. Round 1

1.1 Reviewer 1

Reviewer:

This sentence is too general. Please specify mechanisms (e.g., neuroendocrine pathways, endorphins, cortisol regulation) that link PA with psychological health to set a stronger rationale.

Report Cronbach's alpha for the current sample (not only citing previous studies). While reliability is reported later in Results, it should also be summarized here.

The description is lengthy but lacks justification for self-report vs. objective measures. Please acknowledge the known limitations of IPAQ (recall bias, overestimation).

Clarify why Spearman's was chosen instead of Pearson's, especially given that normality was tested. Were distributions significantly non-normal?

The caption does not clearly explain acronyms (e.g., PA, n). Please expand captions to be fully interpretable without the main text.

This reporting seems unusual (means < 2). Clarify if these are per-item means rather than total scale scores. If so, specify explicitly.

Please rephrase for clarity—this sentence is difficult to follow. Consider separating main effects from the interaction.

Ensure correct author attribution. Reference [25] in the list is “Alizadeh Pahlavani (2024)” on neurotransmitters and depression, not a large-scale study. This misattribution must be corrected.

Author revised the manuscript and uploaded the updated document.

1.2 Reviewer 2

Reviewer:

Consider integrating a recent meta-analysis or systematic review that quantifies effect sizes of intensity on mental health outcomes to update this background.

The wording is ambiguous—please clarify the exact moderation model tested (suspected COVID-19 infection \times MVPA \rightarrow anxiety). State explicitly in hypothesis form.

Please elaborate on recruitment procedures (e.g., online survey, classroom distribution, university mailing lists). This detail is crucial for assessing potential bias.

Provide at least one example item verbatim and describe the expert validation process in more depth (e.g., number of experts, criteria, inter-rater agreement).

The explanation is overly technical for general readers. Simplify and explain what it means practically (e.g., above a threshold of METs, anxiety effect disappears).

Please provide effect size indices (ΔR^2 or f^2) to help interpret the magnitude of moderation.

Clarify why only vigorous activity is highlighted, whereas results sections also reported moderate effects. Ensure consistency.

This reference describes a protocol, not results. Please ensure citations correspond to actual findings, or cite additional outcome studies.

Author revised the manuscript and uploaded the updated document.

2. Revised

Editor's decision after revisions: Accepted.

Editor in Chief's decision: Accepted.