




Exercise and Sleep during Adolescence: Examining the Effects of Different Types of Physical Activity on Sleep Quality

Esmail. Shabani Ezdini¹  Maryam. Faraeen^{2*} 

¹ Department of Sports Sciences, Faculty of Social Sciences, Imam Khomeini International University, Qazvin, Iran

² Department of Sport Sciences, Khoy Branch, Islamic Azad University, Khoy, Iran

* Corresponding author email address: mfareeen@yahoo.com

E d i t o r	R e v i e w e r s
Seyed Hamid Atashpour  Associate Professor, Department of Psychology, Isfahan (Khorasgan) Branch, Islamic Azad University, Isfahan, Iran hamidatashpour@gmail.com	Reviewer 1: Seyed Ali Darbani  Assistant Professor, Department of Psychology and Counseling, South Tehran Branch, Islamic Azad University, Tehran, Iran. Email: Ali.darbani@iau.ac.ir Reviewer 2: Mohammad Hassan Ghanifar  Assistant Professor, Department of Psychology, Birjand Branch, Islamic Azad University, Birjand, Iran. Email: ghanifar@iaubir.ac.ir

1. Round 1

1.1. Reviewer 1

Reviewer:

Consider naming a few of these studies directly or specifying their methodologies to strengthen the argument and demonstrate the depth of the literature.

The discussion of movement behavior clusters is promising. Please elaborate on whether any studies specifically measured screen time as a confounder or moderator in their models.

Consider integrating discussion of actigraphy-verified studies here to support or contrast self-reported durations.

This is a compelling point. Please clarify which developmental disorders were included and whether the sample size allows for generalization.

The concept of overtraining is mentioned only briefly. Please expand on how studies defined and measured overtraining or excessive intensity in adolescents.

Provide more detail about how HIIT was operationalized across the included studies. Were exercise duration and recovery intervals consistent?

Clarify the source or diagnostic criteria used for identifying adolescents with attention-related difficulties in cited studies.

The definitions are helpful, but consider distinguishing more clearly between screen-based and non-screen-based sedentary behavior in terms of their specific effects on sleep.

Please specify whether any cited studies used objective measures (e.g., accelerometers, sleep logs) to assess disparities and behaviors.

Expand this discussion by synthesizing the potential reasons for conflicting results—e.g., differences in exercise type, measurement tools, or participant chronotype.

Response: Revised and uploaded the manuscript.

1.2. Reviewer 2

Reviewer:

The claim of "high-quality" should be justified. Please explain how study quality was evaluated during the selection process. Please justify the exclusion of studies that included adolescents within wider age ranges (e.g., 8–20). How were mixed-age studies handled?

While narrative reviews are flexible, please include a rationale for why a systematic review or meta-analysis was not feasible given the topic and available studies.

This paragraph is strong but could benefit from including more on how sleep stages (e.g., REM, NREM) are specifically altered by physical activity.

Please cite empirical studies that directly tested this mechanism in adolescent populations rather than relying on generalized models.

This mechanism is only briefly mentioned. Please include supporting physiological data or references measuring these effects post-competition.

Consider addressing whether the positive effects of team sports are maintained during off-season or periods of injury.

Please consider incorporating objective chronotype measures (e.g., Morningness-Eveningness Questionnaire) used in the referenced studies.

Response: Revised and uploaded the manuscript.

2. Revised

Editor's decision after revisions: Accepted.

Editor in Chief's decision: Accepted.