# The Impact of Cognitive Fatigue and Sleep Quality on Reaction Time in Athletes

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## 1. Round 1

### 1.1 Reviewer 1

Date: 02 March 2025

Reviewer:

Please clarify and specify why these interrelations are particularly "crucial" now — is it due to recent changes in training demands, competition formats, or emerging evidence? Grounding this claim in current trends would strengthen the opening.

Provide a citation supporting this assertion. Otherwise, it risks appearing as an unsupported generalization.

You repeat much of what was covered earlier. Consider condensing this paragraph or moving the aims and hypotheses earlier, after the problem statement, for stronger flow.

Please report whether you used simple reaction time, choice reaction time, or both from the DLRT — this has meaningful implications for interpreting reaction speed vs. decision-making load.

Report the Cronbach's alpha observed in your sample, not just past research findings. Internal consistency should be re-established for each study.

Please specify whether you considered the global PSQI score alone or examined subscales independently — this detail would affect the interpretation of your "sleep quality" variable.

Considering the large sample size (n=385), the Kolmogorov-Smirnov test may be overly sensitive. Please also report skewness and kurtosis values, or better yet, refer to Q-Q plots.

Including the mean and standard deviation for age would offer more informative demographic characterization.

Authors revised the manuscript and uploaded the updated document.

### 1.2 Reviewer 2

Date: 03 March 2025

Reviewer:

Consider briefly summarizing the extent of "thorough exploration" here (e.g., citing meta-analyses or systematic reviews) to justify the claim and better set the stage for your study's contribution.

The list of factors affecting athlete sleep is comprehensive, but it reads dense. I recommend using sub-categories (e.g., physiological, psychological, logistical) to enhance clarity.

Please specify the number recruited from each source. This information affects potential biases related to sampling methods.

"Moderate" and "relatively poor" are subjective — please justify these interpretations by relating them to established norms for the CFS and PSQI scores.

It would be helpful to report tolerance values alongside VIFs, as standard practice when confirming multicollinearity assumptions.

A correlation of $r = .34$ is moderate at best; "meaningful" might overstate the strength. Consider softening the language or providing a justification based on effect size benchmarks.

Authors revised the manuscript and uploaded the updated document.

## 2. Revised

Editor's decision after revisions: Accepted.

Editor in Chief's decision: Accepted.