



Prediction of Endurance Performance and Repeated Sprint Ability Based on Critical Velocity in Soccer Players Depending on their Playing Position

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E d i t o r	R e v i e w e r s
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1. Round 1

1.1 Reviewer 1

Date: 02 September 2024

Reviewer:

The sentence "Numerous researchers analyzed various aspects of football, and especially how help the players reach their peak performance and ability" is grammatically incorrect. It should be revised to: "Numerous researchers have analyzed various aspects of football, particularly how to help players reach their peak performance and abilities."

In the sentence "Cihan (2022) analyzed the relationship between CV and running profile during a match," consider specifying the study design and the sample size. This additional information will allow readers to better understand the study's robustness and reliability.

The statement "However, a careful examination of the previous studies indicates that none of them have addressed CV and ADC based on the position of the player" lacks citation support. Including references to studies that have or have not considered this would strengthen this claim.

The inclusion of "the participants were asked not to make any changes in their diet and lifestyle" is important. However, more specific details on how compliance was monitored could improve the transparency of the study's methodology.

The schedule is clear, but consider adding more information about the specific tests. For example, explain why the 400m and 1600m tests were selected, and how they relate to the overall aim of predicting CV and ADC.

The description of the RSA test (RAST) is generally clear, but the sentence "For a favorable conclusion in the RSA test, the players were asked to avoid dividing energy between repetitions and perform each activity with their maximum effort" could be more specific. For instance, explain how this was monitored (e.g., through visual observation or time monitoring).

The three formulas provided for calculating the CV index need to be explained further. It is unclear how these formulas are applied in practice. Consider adding a brief example calculation to make these formulas more accessible to readers.

The use of regression analysis and one-way ANOVA is appropriate. However, it would be helpful to clarify which variables were included in the regression models and how potential confounders were controlled for. Did you test for interactions between position and CV, for example?

The table on morphological characteristics provides useful data. However, the footnote indicating "Total" for the final row should be explained. Is this a combined average across all players or a summary statistic?

Authors revised the manuscript and uploaded the updated document.

1.2 Reviewer 2

Date: 09 September 2024

Reviewer:

The phrase "One important variables for measuring performance in football is physical fitness" should be corrected to "One important variable for measuring performance in football is physical fitness." The subject "variable" is singular, so "is" should be used instead of "are."

The term "Critical power" is mentioned early in the introduction, but the relationship to CV is not adequately explained for readers unfamiliar with this concept. Consider adding a brief explanation of how CV extends or is related to the concept of critical power to ensure clarity.

The sentence "CV is the ability to maintain maximum running speed without fatigue, and ADC is the distance covered by anaerobic energy sources in the muscles" needs further clarification. It would be helpful to explain in more detail how CV and ADC are different and how they interact physiologically. For example, clarify how CV is linked to aerobic capacity and ADC to anaerobic capacity.

"The current research used a causal ex post facto design" needs further clarification. Please define "causal ex post facto design" for readers who may be unfamiliar with this terminology. Also, explain why this design was chosen for the study.

In the description of participants, it is noted that they were divided into 6 playing positions. Consider providing further justification for these specific groupings and how this might influence the findings. Are there any potential confounders related to playing position that were considered?

The inclusion and exclusion criteria are well-stated, but the phrase "not smoking, not changing the diet during the study, and also not taking any supplements during the research" would benefit from clearer operationalization. For example, what constitutes "changing the diet"? This clarification is important to ensure reproducibility in future studies.

The variables for age, weight, height, and fat percentage are all presented with mean and standard deviation. Consider adding a measure of central tendency such as the median, as the data may be skewed in certain positions.

The sentence "the present study investigated the effect of CV and ADC variables on power parameters, deceleration index and fatigue index in football players according to their playing positions" is clear but could be expanded by explaining the potential mechanisms by which CV and ADC might influence these parameters.

The comparison with Ari et al. (2021) is interesting, but the discussion of discrepancies between your results and theirs could be more developed. Specifically, explore possible reasons for the differences. Was it the sample size, testing conditions, or methodology that contributed to the differing results?

Authors revised the manuscript and uploaded the updated document.

2. Revised

Editor's decision after revisions: Accepted.

Editor in Chief's decision: Accepted.