Physical Fitness Profiling in Tunisian Junior Tennis Players: A 1-Year Longitudinal Study

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1. Round 1

1.1 Reviewer 1

Date: 24 December 2023

This study aims to examine the effects of one year of tennis practice on physical fitness performance among two age groups of tennis players. This study is significant and well-written, but there is a scarcity of comparable studies. However, there are several clarifications that need to be addressed, as well as additional questions about the protocol. Please refer to my specific comments below. Additionally, it would be helpful to include line and page numbers to facilitate tracking edits.

Response: We thank the reviewer for the constructive comments they have provided. We have made attempts to address each comment and believe that the manuscript has been drastically improved as a result of the suggested changes.

Specific comments:

Title: I suggest to change it to "Physical fitness Profiling in Tunisian junior tennis players: A 1-year longitudinal study" Correction made as suggested.



Please see changes made in the title.

Abstract:

In the control group (n = 26), were the participants sedentary?

Response: Thank you for your comment and we agree with you, the control group where the participants are sedentary.

Regarding the age effect, did you study four subgroups (e.g., TP U16, TPU14, CU14, and CU16)? If so, please provide clarification.

Response: Thank you for your comment, please see changes made in the abstract.

In the Abstract's results subsection, please include the main results along with numerical indices such as means, P-values, and effect size values.

Response: Correction made as suggested, please see changes made in the abstract.

Before mentioning that "VO2max increased significantly," please ensure that you have previously identified "VO2max" in the method subsection.

Response: Correction made as suggested, please see changes made in the abstract.

In the conclusion subsection, please include a brief sentence discussing the age effect between U16 and U14.

Response: Correction made as suggested, please see changes made in the abstract.

When listing the key words, please avoid repeating words already mentioned in the title to increase the chances of appearing during database searches.

Response: Thank you for your suggestion, we edited the "Physical fitness" to "physical performance"

Introduction:

"Between the ages of 10 and 15... less active" there is redundant information in the previous paragraph. It can be summarized and merged with the previous paragraph or removed it.

Response: Thank you for your suggestion. Correction made as suggested, please see changes made in the introduction.

"To take our understanding of ... of junior players in Tunisia" remove this part.

Response: Thank you for your suggestion. Correction made as suggested, please see changes made in the introduction.

Methods:

2.1 Participants:

"in addition to engaging in two ... average duration of 2.5 ± 0.5 years." And "In general, tennis training sessions lasted for 90 min, ... the coach provided feedback and guidance to improve the players' performance."

To provide a clearer structure, this information should be moved to a separate subsection named 'Training Load' in the procedures section.

Response: Thank you for your suggestion. Correction made as suggested by adding a Training load subsection 2.2, please see changes made in the methods.

2.3.2 Jump Performance:

Since the CMJ test using Optojump has already been performed, it is unnecessary to use a less accurate test like the 'standing board jump (SBJ).

Response: Thank you for your comment, we removed the SBJ from the methods and the results sections.

2.3.3 Medicine Ball Throw (MBT) Test:

A reference to the protocol should be inserted.

Response: Correction made as suggested by adding a Training load subsection 2.2, please see changes made in the methods.

2.3.5 Agility Tests:

It is important to note that the mentioned tests assess change of direction ability, not agility. This aligns with the latest updates in the field. The protocols description and figures of the tests have been well described in the literature. A brief description should suffice, with the reference included.

Results:

Please attempt to summarize the lengthy and intricate paragraph into a concise table that emphasizes the analysis of variable effects. Additionally, extract only the key findings into brief sentences.

Thank you for your suggestion. The detailed presentation of analyses of variance in the text is sufficient for conveying the key findings. This approach ensures a comprehensive understanding without the need for an additional table.

Conclusion:

"The study also highlighted the role of muscle mass development, and training specificity in enhancing physical performance". Were you assessed the evolution of skeletal muscle mass over the course of the year?

Thank you for your comment, we did not assess the evolution of skeletal muscle mass to the lack of measurement tools, we delete this sentence.

Furthermore, it would be beneficial to provide a clear and study-specific practical recommendation to emphasize the scientific value of this research."

Response: We made the correction as suggested, please see the conclusion section.

1.2 Reviewer 2

Date: 23 December 2023

Amine Souissi

Recommendation: Accept Submission

I am pleased to recommend publishing this paper. Before publication, formal aspects need further refinement, namely:

Ensure that all literature items (including figures) have been cited.

Response: We thank the reviewer for the constructive comments they have provided. We have made attempts to address each comment and believe that the manuscript has been drastically improved as a result of the suggested changes.

The study thoroughly examines the effects of tennis training on the physical fitness of junior players, providing valuable insights into the potential benefits of such training regimens.

We thank the reviewer for the constructive comments they have provided. We have made attempts to address each comment and believe that the manuscript has been drastically improved as a result of the suggested changes.

1.3 Reviewer 3

Date: 24 December 2023

Abstract:

Remove the last sentence in the abstract.

Response: Correction made as suggested, please see changes made in the abstract.

Participants Section:

Ensure consistent use of abbreviations: "The tennis players participated in five," use "The TP participated in five."

Response: Correction made as suggested, please see changes made in the methods.

Verify that "TP" and "CG" are consistently used throughout the manuscript. Check for any deviations.

Response: Correction made as suggested.

Mention only participant-related information in the "Participants" section.

Response: Correction made as suggested, please see changes made in the methods.

Procedure:

Provide additional details about the training procedure, especially the percentage of training participation for the TP group.

Agility Tests (2.3.5 section):

Clearly outline the test protocol for each agility test within this section. Make it distinct and specific.

Thank you for your suggestion, we rewrite each test in separate subtitles. Please see changes in the methods section.

Results Section:

Uniformity in p-values: Use a consistent format for reporting p-values. Follow the journal's recommendation, presenting exact values or values greater or equal to the specified significance level.

Response: Thank you for your suggestion. Please see changes in the results section.

Discussion:

If the study involves participants of both genders (boys and girls), this needs to be explicitly mentioned in the "Participants" section. Subsequently, the results should discuss and differentiate performance outcomes based on gender. This could significantly alter the study's conclusions and interpretations.

Alternatively, if all participants are male, avoid discussing gender differences in the Results section, as it might be misleading.

Response: Thank you for your feedback. We did mention the number of boys and girls in each group in the "Participants" section. However, due to the limited number of girls, we couldn't conduct meaningful statistical analyses for gender differences. To avoid potential misinterpretations, we refrained from discussing gender-specific outcomes in the Results section.

2. Revised

Editor's decision after revisions: Accepted.

Editor in Chief's decision: Accepted.