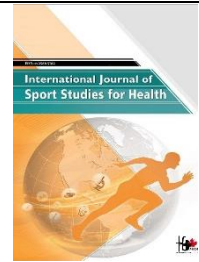


# International Journal of Sport Studies for Health

Journal Homepage



## Effects of Additional Exercise Volume on Weight Loss, Oxidative Stress, and Inflammation in Young Wrestling Athletes

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## 1. Round 1

### 1.1 Reviewer 1

Reviewer:

"Maintaining an optimal weight is essential for wrestlers given their competition in weight-classified categories." The introduction should specify why weight management is particularly challenging and crucial for wrestlers, providing more context about the competitive demands and physiological challenges.

The use of paired t-tests should be justified. Mention if assumptions for the t-test (e.g., normality, homogeneity of variance) were checked and met. Consider including a more detailed description of the statistical tests used.

"The two-week intervention resulted in significant weight loss ( $p < 0.001$ )."

Specify the actual weight loss observed, both in absolute terms and as a percentage of initial body weight.

Provide the exact p-values and confidence intervals for the changes in IL-6, SOD, TAC, and weight. This will give readers a better understanding of the statistical significance and the precision of the estimates.

"The weight loss finding is supported by a meta-analysis by Vissers et al. (2013)..." Discuss potential reasons why the present study's findings align or differ from the cited studies. Address possible differences in methodology, sample characteristics, or intervention specifics.

"The observed increase in antioxidant capacity may have helped mitigate oxidative damage..." Provide more detail on the biological mechanisms by which exercise-induced oxidative stress might be mitigated by increased antioxidant capacity.

"The lack of significant change in MDA levels..." Discuss potential reasons why MDA did not change significantly. Could it be due to the timing of measurements, the specific exercise protocols, or other factors?

Authors revised the manuscript and uploaded the document.

## 1.2 Reviewer 2

Reviewer:

Consider providing references for the claim that "many wrestlers resort to unhealthy methods of rapid weight loss such as drastic caloric restriction and dehydration." Including specific studies or reviews will strengthen this assertion.

"Twenty wrestlers (aged 15-19 weight 63.47 kg) participated..." Please provide more details about the participants' baseline characteristics, including their body fat percentage, training history, and any relevant health markers.

The description of the exercise intervention should include the specific duration and intensity of each training session, not just the types of exercises. This will help in replicating the study and understanding the workload.

Elaborate on the methodology for blood sampling and analysis. Include details such as the equipment used, the exact procedures for serum preparation, and the storage conditions.

"Participant demographic characteristics" lacks statistical analysis to compare baseline characteristics. Adding mean  $\pm$  SD and p-values for pre- and post-intervention comparisons would enhance clarity.

"The elevated levels of IL-6 after the intervention suggest that the increased exercise volume triggered an inflammatory response..." Clarify whether this inflammatory response is considered beneficial or detrimental in the context of the study's goals.

"The increase in IL-6 observed in the present study could potentially mediate the upregulation of antioxidant enzymes..." Further elaborate on how IL-6 functions as a myokine and its role in exercise adaptation.

The conclusion should briefly mention the limitations of the study, such as the small sample size and short intervention period, and suggest areas for future research.

Authors revised the manuscript and uploaded the document.

## 2. Revised

Editor's decision: Accepted.

Editor in Chief's decision: Accepted.