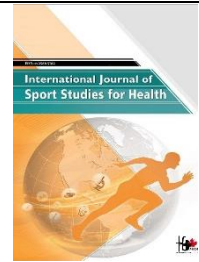


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Comparison of Exercise Intensity Effects on Irisin Serum Levels and Lipid Profiles in Obese Adolescents

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|--|---|
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1. Round 1

1.1 Reviewer 1

Reviewer:

"Obesity negatively impacts almost all physiological functions of the body and poses a significant threat to public health (2)." This statement could be strengthened by including specific examples of physiological functions affected by obesity, along with more recent references.

The table presents extensive data but lacks a clear explanation in the text about the most critical findings. Consider adding a detailed description of the most significant changes observed.

"The results of the Shapiro-Wilk test indicated that the data distribution was normal." Providing specific p-values and test statistics would strengthen this statement.

"According to the findings, there were no significant differences between the pre-test and post-test stages in the control group variables." This could be clarified by specifying which variables were tested and the exact p-values for non-significance.

"The results of this study showed that 10 weeks of exercise with two different intensities led to reductions in body weight, body fat percentage, low-density lipoprotein, and serum irisin levels." This statement should be supported by more detailed data, including specific percentages and statistical significance levels.

"According to the results, irisin levels decreased after exercise at both intensities." It would be helpful to discuss potential physiological mechanisms behind this decrease and cite relevant studies.

"It has been shown that exercise-induced irisin release varies over time." This sentence should be supported with specific studies and data to back up the claim.

"Rashid et al. (2020) examined the effect of long-term moderate-intensity physical activity on irisin in men with normal and obese weight." The details of Rashid et al.'s methodology and findings should be briefly summarized to give context.

"Andre et al. (2022) examined the biological response of irisin resulting from different types of exercise in obese individuals." Similar to Rashid et al., a brief summary of Andre et al.'s methodology and findings would be beneficial.

Author revised the manuscript and uploaded the updated document.

1.2 Reviewer 2

Reviewer:

"Researchers have linked childhood obesity to adult obesity showing that 40% of overweight children will remain overweight in adolescence and 75-80% of them will be obese in adulthood (4)." It would be beneficial to provide the context of these statistics and how they compare to other studies.

"This quasi-experimental study employed a pre-test and post-test design." Please clarify why a quasi-experimental design was chosen instead of a randomized controlled trial (RCT), and discuss any potential biases this might introduce.

"Weight was measured with minimal clothing and without shoes using a mechanical scale with 0.1 kg accuracy." Please provide the model and manufacturer of the mechanical scale for replication purposes.

"The participants' maximum oxygen consumption was measured using a 2400-meter run test." This method of measuring VO₂max could benefit from a brief justification or citation to explain why it was chosen over more direct measurement techniques.

"However, the results may depend on individual characteristics such as metabolic conditions and age (22)." This claim would be stronger if it included specific examples and data points from the literature.

"In the present study after 10 weeks of high- and low-intensity exercise significant reductions in body weight body fat percentage and serum irisin levels were observed in obese adolescents." More precise data, including mean values and confidence intervals, should be presented here.

"Given the impact of physical activity, it is essential to identify obese children and adolescents in schools and encourage them to engage in physical activities." This conclusion could be strengthened by discussing specific strategies or programs that have been successful in achieving this.

Author revised the manuscript and uploaded the updated document.

2. Revised

Editor's decision after revisions: Accepted.

Editor in Chief's decision: Accepted.