




# Comparison of Spinning and Resistance Training on Resistin, Visfatin, Lipid Profile, and Quality of Life in Overweight Women

Mohadese Mohammadi<sup>1</sup>, Elham Eftekhari<sup>2\*</sup>, Jamshid Banaei Borojeni<sup>2</sup>, Hamid Zahedi<sup>2</sup>

<sup>1</sup> PhD candidate, Sport Medicine Research Center, Najafabad Branch, Islamic Azad University, Najafabad, Iran

<sup>2</sup> Assistant professor, Sport Medicine Research Center, Najafabad Branch, Islamic Azad University, Najafabad, Iran

\* Corresponding author email address: E.eftekhari66@gmail.com

E d i t o r	R e v i e w e r s
Özgür Eken  Associate Professor, Inonu University, Malatya, Turkey ozgureken86@gmail.com	Reviewer 1: Masoud Mirmoezi  Department of Physical Education and Sport Sciences, Islamic Azad University, Central Tehran Branch, Tehran, Iran. Email: massoudmirmoezi@live.com Reviewer 2: Mohammad Reza Khodabakhsh  Department of Psychology, Neyshabour Branch, Islamic Azad University, Neyshabour, Iran. Email :hodabakhsh@ut.ac.ir

## 1. Round 1

### 1.1 Reviewer 1

Date: 04 February 2025

Reviewer:

In the "Spinning Training" section, the study mentions "intensity increasing by 5% every two weeks." However, it does not specify whether this refers to heart rate reserve (HRR), maximal oxygen uptake (VO2max), or another metric. Clarification is needed.

Figures (e.g., Figure 1 and Figure 2) show changes in resistin and visfatin levels, but they lack confidence intervals or standard error bars. Including these would provide a better representation of data variability.

The study does not report whether participants had prior experience with spinning or resistance training. If participants in one group had more experience, it could affect the results. Consider addressing this in limitations.

Since Bonferroni post hoc tests were used, a correction for multiple comparisons should be mentioned. Otherwise, the risk of Type I error could be a concern.

The introduction states that "visfatin is associated with subcutaneous and visceral fat mass," citing Fukuhara et al. (2005). However, some later discussions (e.g., in the discussion section) do not align with this. A more nuanced discussion is needed on how visfatin correlates with fat distribution.

Authors revised the manuscript and uploaded the updated document.

## 1.2 Reviewer 2

Date: 07 February 2025

Reviewer:

The resistance training protocol mentions the use of one-repetition maximum (1RM) but does not explain whether 1RM was reassessed midway through the intervention to account for strength gains. If this was done, it should be reported; if not, it could be a limitation.

Since dietary intake can significantly influence lipid profiles and adipokine levels, was participants' diet monitored or controlled? If not, this should be noted as a study limitation.

The abstract states, "no significant difference was observed between groups in the psychological dimension." However, the findings section reports significant improvements in the mental health dimension (Figure 8). This discrepancy should be clarified.

The article states that "ANCOVA was used to analyze data," but it does not report the homogeneity of regression slopes assumption test. This is essential for ANCOVA validity and should be included.

The discussion references "Alinia and Moein (2018) found that aerobic exercise improved levels of adiponectin, leptin, and resistin." However, this study should be reviewed carefully to ensure its findings are not being overgeneralized to spinning specifically.

The study finds reductions in resistin and visfatin but does not sufficiently discuss the physiological mechanisms (e.g., inflammatory pathways, insulin sensitivity) that might mediate these effects. Expanding on this would strengthen the discussion.

Authors revised the manuscript and uploaded the updated document.

## 2. Revised

Editor's decision after revisions: Accepted.

Editor in Chief's decision: Accepted.