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Physiological effects of high intensity interval training in post-menopausal women: A systematic review

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INTRODUCTION

High intensity interval training (HIIT) refers to repeated intense anaerobic activity periods that require high effort with a short recovery time (Tabata et al., 1996). During the last decades, a growing body of literature has shown the positive impacts of HIIT on body composition and cardio-metabolic fitness in both clinical and non-clinical populations. However, there is a lack of reviews that focused on the effects of HIIT across the stages of menopause.

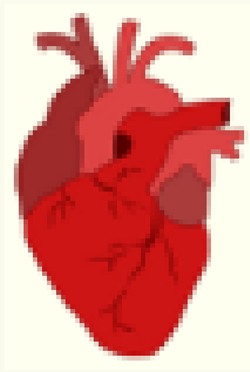
PURPOSE

The aim of this systematic review was to overview the physiological influences of HIIT in post-menopausal women.

METHODS

The study was conducted and reported according to the preferred reporting items for systematic reviews and meta-analyses (PRISMA) guidelines (Ardern et al., 2022). A systematic review was conducted from three electronic databases; Web of Science, PubMed, and SPORTDiscus with Full Text. The Boolean search strategy was implemented to reach accurate and reliable results.

RESULTS



A total of 89 full-text articles were found in the initial search of the literature. Eleven articles met the inclusion criteria and were included in the review. The results of five reviewed studies showed that participating in HIIT led a significant decrease in fat mass and increase in lean body mass. Additionally, four of the reviewed studies indicated that there was a significant decrease in body mass. Besides, a significant increase in resting stroke volume and total hemoglobin and a significant decrease in resting heart rate was observed in three individual studies.

CONCLUSION

The results may suggest that HIIT can be a beneficial training modality for women who are in their post-menopausal period to achieve improvement in several physiological health parameters.

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