

LETTER TO EDITOR

Brisk Walking for Elderly Individuals with Hypertension

El Rahmayati¹, MD; Upik Rahmi², MD; Rizal Ilbert³, MS

¹Nursing Program Study, Poltekkes Kemenkes Tanjung Karang, Lampung, Indonesia;

²Nursing Program Study, Faculty of Sports and Health of Education, Universitas Pendidikan Indonesia, Bandung Indonesia;

³Nursing Program Study, STIKep PPNI, Bandung, Indonesia

Corresponding Author:

Upik Rahmi, MD; Nursing Program Study, Faculty of sports and health of education, Universitas Pendidikan Indonesia, Jl. Dr. Setiabudi No. 229, Postal code: 40154, Bandung, Indonesia

Tel: +62 81 279007754; **Email:** upikrahmi@upi.edu

Received: 13 July 2023 **Revised:** 15 August 2023 **Accepted:** 19 August 2023

DEAR EDITOR

One of the risk factors for cardiovascular disease is hypertension. According to the 2017 global burden of disease report, it was indicated that the number of individuals worldwide suffering from hypertension will have reached 1.56 billion by 2025, indicating a 60% rise in its global prevalence.¹ Research conducted in various countries has revealed a global rise in the prevalence of hypertension, primarily attributed to such factors as population growth, aging, and changes in behavioral risks. Middle- and low-income countries experienced a significant increase in hypertension prevalence in comparison with high-income countries in recent years.^{1,2}

Brisk walking exercise, as a form of aerobic exercise, can involve major muscle groups, increase oxygen consumption, and improve physical fitness. When you do brisk walking exercises every day, the body moves, the muscles and nerves also move, and you sweat. These movements can respond to changes in physical and physiological functions, such as heart rate, blood pressure, and muscles. Regular brisk walking not only strengthens the muscles, but also improves the blood and oxygen circulation in the body, optimizing the body metabolism. The central nervous system works better, so the body feels refreshed, and the brain works better.^{3,4}

A study showed the effect of brisk walking exercise on increasing the oxygen volume to its maximum in overweight and non-elderly obese females.⁴ A systematic review showed that the benefits of brisk walking included enhancing cardiorespiratory fitness, muscular strength, and body composition in the elderly. However, further research is needed to validate the effects of brisk walking, endurance, and overall life satisfaction in this group.⁵ A pilot study showed that 60 minutes of brisk walking, three times a week for 12 weeks, can reduce systolic blood pressure in the elderly patients with hypertension. Engaging in brisk walking can potentially decrease the sympathetic activity and increase the vagal tone, which may result in a decrease in peripheral resistance. It is widely recognized that consistent physical activity can lower norepinephrine levels by around 30%, and these reductions may correspond to the decrease in resting blood pressure.⁶

It seems that brisk walking exercise is effective for the elderly people with hypertension. Frequency, intensity, time, and type of the principles of brisk walking training should be examined for better evaluation of the effect of the exercise on the hypertension of the elderly in future research.

ACKNOWLEDGEMENT

This work was supported by the Director of the Poltekkes Kemenkes Tanjung Karang Lampung, Head of the Department of the Nursing Study Program at the Indonesian University of Education.

Conflict of Interest: None declared.

Please cite this article as: Rahmayati E, Rahmi U, Ilbert R. Brisk Walking for Elderly Individuals with Hypertension. *IJCBNM*. 2023;11(4):289-290. doi: 10.30476/IJCBNM.2023.99854.2325.

REFERENCES

- 1 GBD 2017 Risk Factor Collaborators. Global, regional, and national comparative risk assessment of 84 behavioural, environmental and occupational, and metabolic risks or clusters of risks for 195 countries and territories, 1990-2017: a systematic analysis for the Global Burden of Disease Study 2017. *Lancet*. 2018; 392:1923-94.
- 2 Mills KT, Bundy JD, Kelly TN, et al. Global Disparities of Hypertension Prevalence and Control: A Systematic Analysis of Population-Based Studies From 90 Countries. *Circulation*. 2016; 134:441-50.
- 3 Boutcher YN, Boutcher SH. Exercise intensity and hypertension: what's new? *Journal of Human Hypertension*. 2017; 31:157-64.
- 4 Harun I, Riyadi H, Briawan D, Khomsan A. The effect of 12-weeks brisk walking exercise duration on blood pressure and VO2max on overweight and obese female students in Indonesia. *Nutrición Clínica y Dietética Hospitalaria*. 2022; 42:79-85.
- 5 Bai X, Soh KG, Omar Dev RD, et al. Effect of Brisk Walking on Health-Related Physical Fitness Balance and Life Satisfaction Among the Elderly: A Systematic Review. *Frontiers in Public Health*. 2022;9: 829367.
- 6 He LI, Wei WR, Can Z. Effects of 12-week brisk walking training on exercise blood pressure in elderly patients with essential hypertension: a pilot study. *Clinical and Experimental Hypertension*. 2018; 40:673-9.