Assessment through the short physical performance battery of the functionality in individuals with metabolic syndrome exposed to whole-body vibration exercises.

L. L. Paineiras-Domingos, D. da Cunha Sà-Caputo, A.S. Reis, F. A. Santos, C. R. Sousa-Gonçalves, E. M. dos Anjos, M. J. dos Santos Pereira, A. Sartorio, M. Bernardo-Filho

Dose Response 16: 1-10, 2018.

Physical activity is recommended in the management of individuals with metabolic syndrome (MetS), and recent studies have suggested whole-body vibration exercise (WBVe) for this population. The aim of this study was to evaluate the functionality through the Short Physical Performance Battery (SPPB) in individuals with MetS after WBVe. The SPPB evaluates the balance, the gait speed, and the lower limb strength (five-chair stand [5CS] test). Forty-four individuals with MetS were divided into WBVe (WBVeG) and control (CG) groups. The individuals of the WBVeG performed 10 sessions of WBVe in an oscillating/vibratory platform (OVP), barefoot, for 3 minutes at the peak-to-peak displacements of 2.5, 5.0, and 7.5 mm, with a resting period of 1 minute (total time: 18 minutes/session). The frequencies ranged from 5 up to 14 Hz. The individuals of the CG performed all the steps of the study, but the OVP was turned off. Before the first and after the tenth session, the individuals performed the SPPB. Significant responses were found in the WBVeG, analyzing the total score of the SPPB (P = .005), the balance test (P = .01), the gait speed (P = .006), and the 5CS test (P = .03), resulting in the improvement of the functionality of individuals with MetS.