Abstract

Objective
The aim of this study was to identify if there is any significant difference in dynamic postural stability after 3D Virtual Reality VR application on healthy adults.

Methodology
There were 11 healthy adults participants (n=11, 7 males, 4 females), with age average of 27 years. Pre-test and post-test procedures were performed by using NeuroCom, Smart Balance Master System, Sensory Organization Test SOT (Composite Equilibrium, Sensory Analysis of Somatosensory SOM, Visual VIS, Vestibular VEST, and Preference PREF) and Motor Control Test MCT (Weight Symmetry). Application of 3D Virtual Reality was provided by using Samsung Gear Goggles, with 5 minutes duration.

Results
There were no significant statistical differences in SOT Composite Equilibrium, Sensory Analysis of Somatosensory SOM, Visual VIS, Vestibular VEST, Preference PREF, and MCT Weight Symmetry results (p > 0.05) after the Virtual Reality application.

Conclusion
The application of Virtual Reality has no significant difference on dynamic postural stability in healthy adults from one session exposure. Further investigation and trials are needed to clarify the Virtual Reality effectiveness on dynamic postural stability of healthy adults.

Keywords