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Efficacy of virtual reality in upper limb rehabilitation in persons with spinal cord injury: A pilot randomized controlled trial

Somya Prasad and Ruby Aikat
Indian Spinal Injuries Centre, India

Background: The use of virtual reality has gained importance in the rehabilitation sector over the last few years. The Nintendo Wii Fit has the potential to encourage upper limb function while participating in an interesting and engaging activity, which is important in long-term interventions, such as spinal cord injury. Wii is very flexible with regard to the movements that are needed to play the game, offering the opportunity for a patient to work on the affected upper limb with reasonable success, benefiting from the visual feedback that the console offers. Hence, the present study is designed to find out the effectiveness of Wii Fit rehabilitation in upper limb functioning in SCI.

Objective: To determine the effectiveness of virtual reality (using Wii Fit) and to compare the efficacy of virtual reality intervention (using Wii Fit) along with conventional occupational therapy with conventional occupational therapy alone in improving upper limb function in spinal cord injury.

Method: 24 patients with spinal cord injury (quadriplegia), were treated over a period of 1 month in weekly 30-minute sessions.

Result: Motor-skill improvements were observed.

Conclusion: Virtual reality Wii gaming system is feasible, promotes motor recovery after spinal cord injury, increases patient motivation and enriches the treatment.

Biography

Somya Prasad is a Post-graduate student pursuing Master's in Occupational Therapy with Specialization in Neurology from Indian Spinal Injuries Centre, New Delhi, India.

somyaprasad0@gmail.com

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