Exergames for women with fibromyalgia: A randomised controlled trial to evaluate the effects on mobility skills, balance and fear of falling

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Background. Exergames are a new form of rehabilitation that combine the characteristics of physical exercise and the benefits of non-immersive virtual reality (VR). Effects of this novel therapy in women fibromyalgia are still unknown. The objective was to evaluate the effects of exergame-based intervention on mobility skills, balance and fear of falling in women with fibromyalgia. Methods. This study was a randomized controlled trial with concealed allocation. Seventy-six women with fibromyalgia were divided into two groups: the exercise group received an eight week intervention based on exergames, while the control group continued their usual activities. Mobility skills were evaluated using the timed up and go test, while balance was assessed using the functional reach test, and the CTSIB protocol. Fear of falling was evaluated on a scale of 0-100 (0, no fear; 100, extreme fear). Measurements were performed before and after the intervention. A repeated-measures linear mixed model was used to compare the effects of the intervention between the two groups. Results. The exercise group was significantly quicker than the control group in the timed up and go test (MD, -0.71; 95% CI [-1.09-0.32]; p < 0.001). There were also significant improvements in functional reach and a reduced fear of falling (MD, 4.34; 95% CI [1.39-7.30]; p = 0.005 and MD, -9.85; 95% CI [-0.19--0.08]; p = 0.048, respectively). Discussion. The improved TUG observed herein was better than the smallest real difference. Based on the results on mobility skills, balance and fear of falling, exergames may be an effective tool as a therapy for women with fibromyalgia. © 2017 Collado-Mateo et al.