primary studies - published RCT

Effectiveness of a Home-Based Active Video Game Programme in Young Cystic Fibrosis Patients.

Code: PM29045949 **Year:** 2018 **Date:** 2018 **Author:** Del Corral T

Study design (if review, criteria of inclusion for studies)

Randomized controlled trial

Participants

Thirty-nine children with CF

Interventions

Children were randomised to a control group (CG, n = 20, age 11 +/- 6 years; FEV1 86.2 +/- 20.5% of predicted) or a training group (AVGG, n = 19, age 13 +/- 3 years; FEV1 82.7 +/- 21.7% of predicted). The home training protocol consisted of 30- to 60-min sessions, 5 days/week, for 6 weeks using a Nintendo WiiTM platform.

Outcome measures

Exercise capacity was measured by the 6-min walk test (6MWT) and modified shuttle walk test (MSWT); muscular strength was estimated using the horizontal jump test (HJT), medicine ball throw (MBT), and hand grip strength (right [RHG]; left [LHG]); and quality of life was rated using the Cystic Fibrosis Questionnaire-Revised (CFQ-R). All the children were measured at baseline, after rehabilitation, and at 12 months.

Main results

For the group x time interaction ANOVAs, the AVGG showed significant between-group differences in exercise capacity: 6MWT farthest walking distance, 38.4 m (p

Authors' conclusions

A home-based programme using AVGs can effectively improve exercise capacity, muscular strength and quality of life in the short-term in children and adolescents with CF. The effects of training on muscle performance and quality of life were sustained over 12 months.

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See also

Respiration. 2018;95(2):87-97. doi: 10.1159/000481264. Epub 2017 Oct 19.

Keywords

Games- Experimental; non pharmacological intervention - psyco-soc-edu-org; Respiratory Tract Diseases; Chest physiotherapy; non pharmacological intervention - devices OR physiotherapy;