primary studies - published RCT

Gaming console exercise and cycle or treadmill exercise provide similar cardiovascular demand in adults with cystic fibrosis: a randomised cross-over trial.

Code: PM21402328 **Year:** 2011 **Date:** 2011 **Author:** Kuys SS

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

Randomised cross-over trial

Participants

19 adults with cystic fibrosis admitted to hospital for treatment of a pulmonary exacerbation.

Interventions

Participants underwent two 15-minute exercise interventions on separate days; one involving a gaming console and one a treadmill or cycle ergometer.

Outcome measures

Cardiovascular demand was measured using heart rate and rating of perceived exertion (RPE). Energy expenditure was estimated using a portable activity monitor. Perception (enjoyment, fatigue, workload, effectiveness, feasibility) was rated using a horizontal 10-cm visual analogue scale.

Main results

There was no significant difference in average heart rate (mean difference 3 beats/min, 95% CI -3 to 9) or energy expenditure (0.1 MET, 95% CI -0.3 to 0.5) between the two interventions. Both interventions provided a 'hard' workout (RPE ~15). Gaming console exercise was rated as more enjoyable (mean difference 2.6 cm, 95% CI 1.6 to 3.6) than formal exercise but they didn't differ significantly in fatigue (-1.0 cm, 95% CI -2.4 to 0.3), perceived effectiveness (-0.4 cm, 95% CI -1.2 to 0.3), or perceived feasibility for inclusion in routine management (0.2 cm, 95% CI -0.7 to 1.1).

Authors' conclusions

Gaming console exercise provides a similar cardiovascular demand as traditional exercise modalities. It is feasible that adults with cystic fibrosis could include gaming console exercise in their exercise program.

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See also

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Keywords

Adult; Cardiovascular diseases; exercise; Games- Experimental; non pharmacological intervention - devices OR physiotherapy; Exacerbation; Respiratory Tract Infections; Respiratory Tract Diseases; Infection; Bacterial Infections; cycle ergometer; Training; Chest physiotherapy; Psychoeducation; non pharmacological intervention - psyco-soc-edu-org;