

How do outcomes used in the evaluation of commercial active video games, inform future rehabilitation research? A discussion.

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ABSTRACT

Objectives

To identify the outcomes currently used to evaluate the feasibility of commercially available active video games (AVGs) in rehabilitation research.

Data Sources

A comprehensive computer-aided search was conducted for English-language articles, sourced via EBSCO Megafire Premier, Web of Science, and Scopus data banks, using keywords *video games* and *rehabilitation*. Twenty-five articles are included in this review; four are randomised controlled trials.

Study Selection

Studies selected included child and adult populations both clinical and healthy, undergoing interventions using Sony PlayStation and Nintendo Wii devices. All non-commercial gaming and haptic devices were excluded from the review. Twenty-five studies meeting the inclusion criteria were analysed by two separate reviewers.

Main Outcomes

Studies covered a broad spectrum of outcomes including physical fitness, function, and balance.

Results

Nintendo Wii and Sony PlayStation interactive gaming platforms hold clinical potential, in the functional retraining of balance, upper limb dysfunction, and physical fitness.

Conclusions

There is little high quality evidence available. Initial studies show promise for rehabilitation of physical fitness and function, but long-term sustainability needs investigation. Investigation of Microsoft's X-Box Kinect gaming platform is noticeably absent.