Exergames for Older Adults with Subthreshold Depression
Examining the Influences of Playfulness on Antidepressant Effect of Exergames

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Compared to major depression, subthreshold depression often has a much higher prevalent rate among older adults.

Subthreshold depression among aging population leads to poorer physical health, more impairment in activities of daily living, increased mortality and healthcare utilization.

The use of exergames is increasingly prevalent in the healthcare promotion among older adults.

Current study aimed to examine whether the playfulness may influence the antidepressant effect of exergames on older adults.

A total of 44 community-dwelling older adults diagnosed with subthreshold depression in Singapore;

Randomly assigned to two experimental conditions, high playfulness (Wii sport games) and low playfulness (Wii Fit training);

Six-week between-group study;

A manipulation check was conducted first to confirm the significant difference in playfulness between the two conditions;

Their depression, positive emotions, and self-efficacy were measured at both pre- and post-test.

A multivariate analysis of covariance (MANCOVA) was conducted between two condition, with age and gender as the covariates.

Older adults in both two exergame conditions have improvements in subthreshold depression, positive emotions, and self-efficacy;

More importantly, significant effect of playfulness in exergames was found on subthreshold depression among older adults;

It demonstrated that exergames with high playfulness have superior antidepressant effect than those with low playfulness.

The study is the first study to examine how playfulness influences the impact of exergames on subthreshold depression among older adults;

Information gained from the study will assist in the future implement and development of exergames that aim to improve mental health among older adults.

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