

# Researchers find exercise lifts mood for adults with Down's syndrome

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Credit: Cliff Booth from Pexels

A new study has discovered that physical activity and cognitive training can improve levels of life satisfaction and mood for adults with Down's syndrome.

Published in the [\*International Journal of Environmental Research and Public Health\*](#), the Mindsets study is the first to investigate the benefits of a period of prescribed physical and cognitive exercises on a group of adults with Down's [syndrome](#).

The research involved 83 participants, aged between 18 and 48, recruited following an international campaign by the Canadian Down Syndrome Society.

The study was led by Dr. Dan Gordon and Viviane Merzbach of Anglia Ruskin University (ARU) and involved the volunteers, from countries across five continents, being assigned to one of four groups for an eight-week period.

As well as a control group, these included participating in a program of light [physical exercise](#), which involving walking for 30 minutes three times a week, and taking part in activities provided by BrainHQ, aimed at boosting mental and executive function.

Overall, the study found that cognitive and physical exercises provide a framework for enhancing [life satisfaction](#), self-efficacy and mood, which can lead to overall improvements in quality of life.

Profile of Mood States (POMS) scores were assessed using a five-point scale across 65 categories and there were significant improvements across the whole group over the eight-week period. Participants felt significantly less tense from pre- to post-study and reported a significant reduction in anger scores. Fatigue scores were also significantly reduced, while confusion scores improved.

The Generalized Self-Efficacy scale (GSE) looks at an individual's belief in their own capacity, and this improved across the whole group. Detailed analysis showed participants in the physical exercise-only group

scored their self-efficacy significantly higher than those in the control group, which took part in neither the physical nor cognitive activities.

Satisfaction with Life Scale (SWLS) scores increased overall across the group during the course study, although there were no statistically significant changes in the total sample or within any of the groups.

Dr. Dan Gordon, Associate Professor in Cardiorespiratory Exercise Physiology at Anglia Ruskin University and senior author of the study, said, "This is the first study of its kind and we found that a period of prescribed training involving cognitive and physical exercises has the potential to improve the quality of life and mood among an adult community with Down's syndrome.

"These findings are important and provide further evidence that activities such as the ones used in this trial not only improve biological and cognitive health but may also enhance someone's quality of life and improve self-efficacy within adults with Down's syndrome.

"The [potential benefits](#) to the Down's syndrome community are huge if future, longer-term studies demonstrate that being more physically active and cognitively stimulated can promote self-worth and social integration."

The new study builds on [previous research from the Mindsets study](#), which found that walking exercises can improve information processing and attention after just eight weeks.

**More information:** Viviane Merzbach et al, The Effects of Prescribed Physical and Cognitive Exercise on Life Satisfaction, Self-Efficacy and Mood States in Adults with Down Syndrome: The MinDSets Study,

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