

Randomised controlled trial

Walking in nature can help depression

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Implications for practice and research

- ▶ Walking is an accessible and low-cost intervention that does not require specialised equipment or staff. Promoting walking, ideally in nature as part of routine mental healthcare, should be encouraged.
- ▶ Consideration should be given to the accessibility of natural spaces in geographically and culturally diverse settings and how this may impact the relationship between physical activity, mental health and the natural environment.

Context

Physical activity improves mental and physical health in people with depression.¹ Interventions that target modifiable lifestyle behaviours, such as physical activity, can be delivered alongside or in the absence of traditional mental healthcare and are pivotal to addressing the increasing burden of depression. There is a growing body of evidence linking outdoor, natural green spaces with positive psychological and cognitive outcomes, and neural activity in regions of the brain associated with risk of depression.²

Methods

This randomised controlled study included 47 participants with major depressive disorder (MDD) recruited between 2019 and 2021 from an outpatient clinic in Quebec, Canada. The sample comprised of mostly well-educated women reporting mild-to-moderate depressive symptoms, who were also receiving pharmacological treatment. Participants were randomised to a single 60-minute supervised walk individually or with a partner, in either an urban nature park setting or along a busy road. Positive and negative affect were assessed pre, during and immediately post walk, that night, 24 hours and 48 hours post. Data were analysed using two-tailed t-tests and repeated measures mixed models.

Findings

Participants in the nature condition reported significantly lower negative affect across all time points. After controlling for pre-walk affect, walking in nature significantly lowered negative affect compared with walking in an urban setting, and positive affect decreased over time, returning to

baseline levels, across both walk conditions. Results suggest walking in nature may reduce negative affect in people with MDD, although these effects were not maintained at 48 hours post.

Commentary

Depression is the leading cause of disease burden globally, and rates of depression appear to be increasing.³ Walking is a largely accessible and cost-effective form of physical activity that may help address symptoms of depression as well as risk of comorbid physical health conditions such as obesity and cardiovascular disease. Compared with exercising indoors, exercising in natural environments has demonstrated greater enjoyment and satisfaction, and greater decreases in tension, confusion, anger and depression.⁴

The authors found that a single 60-minute walk in a large urban park provided greater reductions in negative affect and no changes in positive affect, compared with walking along a busy road. These findings are in line with previous studies,⁵ and the results intuitive given the critical importance of *enjoyment* to the physical activity and mental health relationship.

These results reflect a beneficial adjunctive intervention to support the mental and physical well-being of individuals already engaged in treatment, who have access to a safe environment, support to address motivational barriers and the time available to engage in physical activity.

The challenge lies in identifying how this knowledge can be applied beyond 'WEIRD' contexts (*Western Educated Industrialised Rich Democratic*). Safe natural environments where people can enjoy nature through movement are not universally accessible. Access to safe, natural environments is a socioeconomic privilege.⁶ Nonetheless, this should not dampen our attempts at integrating and promoting physical activity, ideally outdoors, for depression across culturally and geographically diverse contexts.

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Competing interests None declared.

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