

The role of mindfulness in physical activity: A systematic review

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Background and objectives: Despite public health campaigns to increase physical activity (PA), a majority of the population is inactive. PA interventions show modest changes in PA and limited long-term benefits. Mindfulness-based training (MBT) practices are receiving attention in lifestyle interventions. This review evaluates evidence for the potential of MBT approaches for PA.

Methods: A systematic search was conducted for papers published up to 1 December 2017 using Google Scholar, MEDLINE (PubMed), PsycINFO, PsycNET, PsycARTICLES, and Ovid. Inclusion criteria: 1) cross-sectional studies that measured dispositional mindfulness 2) interventions that contained mindfulness meditation training or related skills; 3) mindfulness-based interventions that included PA education; 4) measured any frequency, type, duration, or intensity of PA; 5) included quantitative outcomes; and 6) published in English.

Results: A total of $n = 33$ papers were included. Evidence from cross-sectional studies ($n = 16$) indicated a positive relationship between mindfulness and PA-related cognitions, e.g., self-efficacy and self-regulation, but results were mixed for PA behaviour. Three studies found that the mindfulness-PA relationship was mediated by stress, satisfaction with PA, and state mindfulness. Two studies found that mindfulness moderated the relationship between PA cognitions and PA. Evidence from MBT interventions ($n = 17$) showed a positive effect on PA in over half of the studies. However, interventions varied in duration, session length, group size, delivery, and content, and many had no follow-up data. MBT interventions were more likely to be successful if they contained PA-specific components.

Discussion and conclusion: Results indicate that mindfulness relates to PA cognitions and behaviour, but the body of research shows a need for more methodologically rigorous studies to establish the role of mindfulness in PA. Longitudinal and experimental designs with follow-up are needed to identify mechanisms involved in the mindfulness-PA relationship.