

Recovery From Work Through Physical Activity Interventions – A Systematic Review and Meta-Analysis

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Purpose: Physical activity is associated with recovery from work. This systematic review and meta-analysis aimed to summarise the most effective physical activity interventions to enhance employees' recovery from work.

Methods: The literature search was conducted in June 2024, utilising five databases: CINAHL, MEDLINE, PsycInfo, PubMed, and Scopus. The eligibility criteria comprised randomised controlled trials (RCTs) and crossover trials, including individual or group physical activity interventions, delivered inside or outside working hours, as guided or self-directed sessions, online or face-to-face, and of any duration. Interventions were compared to counselling, mindfulness, or no intervention. The main outcomes of the systematic review were the Need for Recovery (NfR) and/or Recovery Experience Questionnaire (REQ); the main outcome of the meta-analysis was the NfR. Following the database search, the eligibility screening of titles, abstracts, and full texts was conducted using Covidence. The methodological quality of trials, the risk of bias, and the certainty of evidence were evaluated. A random-effects model was applied to produce the pooled effect size of primary studies eligible for the meta-analysis.

Results: The systematic review included 12 studies, of which six were combined in the meta-analysis. The quality of the studies was generally good. Different physical activity interventions had varying associations (from favourable to even unfavourable change) with recovery from work. Based on the meta-analysis, physical activity had no effect on NfR. In randomised controlled trials, the pooled standardised mean difference (95% CI; p-value) was -0.03 (-0.20 – 0.13 ; .697) and when the four trials were pooled together with two cluster randomised trials, it was -0.06 (-0.18 – 0.05 ; .290). Heterogeneity was not an issue but the I^2 index indicated consistency. The certainty of evidence was low.

Conclusion: Interventions had varying associations (from favourable to even unfavourable change) with recovery from work. Meta-analysis indicated no effect on NfR. Therefore, it is unclear which physical activity interventions are the most effective, and further research is needed.

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Keywords: Systematic review, meta-analysis, recovery from work, physical activity, intervention

