
Title

Dropout From Exercise Interventions in Adults With Knee or Hip Osteoarthritis: A Systematic Review and Meta-analysis

Abstract

Objective: To investigate the prevalence and moderators of dropout rates among adults with knee or hip osteoarthritis participating in exercise randomized controlled trials (RCTs). Data Sources: Two authors searched Embase, CINAHL, PsycARTICLES, and PubMed up to 01/09/2023. Study Selection: We included RCTs of exercise interventions in people with knee or hip osteoarthritis that reported dropout rates. Data Extraction: Dropout rates from exercise and control conditions and exerciser/participant, provider, and design/implementation related moderators. Data Synthesis: In total, 209 RCTs involving 277 exercise arms in 13,102 participants were included (mean age at study level=64 years; median prevalence of men participants=26.8%). The trim-and-fill-adjusted prevalence of dropout across all RCTs was 17.5% (95% CI=16.7%-18.2%), which is comparable with dropout observed in control conditions (trim-and-fill-adjusted odds ratio=0.89; 95% CI=0.71-1.12, P=.37). Higher prevalence of antidepressant use at study-level predicted higher dropout ($R^2=0.75$, $P=.002$, N RCTs=6, n exercisers=412). Supervision by an exercise professional was associated with lower dropout rates, with a trim-and-fill-adjusted rate of 13.2% (95% CI=11.7%-14.9%) compared with 20.8% without supervision (95% CI=18.3%-23.5%) ($P<.001$). Conclusions: Dropout rates for exercise in RCTs are comparable with control conditions, suggesting that exercise is a generally well-accepted intervention. However, interventions should be supervised by an exercise professional, such as a physiotherapist or exercise physiologist, to further minimize the risk of dropout. Health professionals should consider participants' use of antidepressants as a risk factor for dropout from exercise. © 2024 American Congress of Rehabilitation Medicine

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