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REMOTE RELIEF: THE INFLUENCE OF TELEREHABILITATION IN THE MANAGEMENT OF KNEE OSTEOARTHRITIS – A SCOPING REVIEW OF RANDOMIZED CONTROLLED TRIALS

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Background: Traditional exercise therapy for knee osteoarthritis (OA) rehabilitation typically involves in-person sessions at clinics or unsupervised home exercises, which may lead to poor adherence and performance. In response, new technologies have been utilized to address these challenges.

Objective: This review aimed to assess the impact of technology-supported exercise programs in managing knee OA.

Methods: The study is registered in OSF. A literature search was conducted in several electronic databases like PubMed, Scopus, CINAHL. The search terms included combinations of keywords and MeSH terms such as "telerehabilitation," "knee osteoarthritis," "knee arthroplasty," "remote rehabilitation," "digital health," "telehealth," and "physical therapy." Articles published in English within the last 10 years were included. 11 studies meeting the inclusion criteria were analyzed.

Results: This overview consolidates findings from 11 studies exploring various telerehabilitation interventions for knee osteoarthritis (OA). These studies, involving different approaches like internet-based programs, telephone consultations, videoconferencing, and blended physical therapy collectively indicate that telerehabilitation can effectively manage knee OA symptoms, including pain reduction and physical function improvement. Preoperative telerehabilitation enhanced muscle strength, range of motion, and functional outcomes in patients preparing for knee arthroplasty, showing potential for optimizing surgical readiness. Remote monitoring after knee arthroplasty also led to positive outcomes, such as quicker discharge to home, reduced hospital readmissions, and a faster return to activities of daily living. The perception of patients about telerehabilitation was found to be good.

Conclusion: The results prove that telerehabilitation is a promising tool in rehabilitation of knee osteoarthritis. Telerehabilitation is effective for pain control, physical function improvement and it is cost effective in knee OA patients.

Keywords: knee osteoarthritis, telerehabilitation, digital health