

the HOOS quality of life subscale (mean difference: 11.93; 95% CI: 3.38 to 20.48), whereas no significant differences between groups were observed for this outcome at any post-surgical assessment. For all other secondary outcomes, no significant between-group differences were noted at any assessment point. Within-group improvements were observed across all outcomes from 3 to 12 months post-surgery. By 12 months post-surgery, both groups performed well in gait speed relative to reference values for fast-paced walking.

Conclusions: Our study did not demonstrate efficacy of prehabilitation in any post-surgical outcome measures. However, the impact of undergoing a total hip replacement (THR) was evident, with substantial improvements observed across all measured outcomes in both the intervention and control groups. By 12 months post-surgery, both groups performed well against reference values for fast-paced gait speed, underscoring the benefits of THR irrespective of prehabilitation. Study limitations included participant dropouts, missing data, and difficulties in maintaining exercise progression, which may have influenced the findings.

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MULTICENTER RANDOMIZED CONTROLLED TRIAL OF STANDARD PHYSICAL THERAPY VS. SHAM PT IN PERSONS WITH KNEE PAIN, MENISCAL TEAR, AND OSTEOARTHRITIS

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Purpose (the aim of the study): The syndrome of knee pain and meniscal tear (MT) is prevalent and disabling. The TeMPO trial (Treatment of Meniscal Problems in Osteoarthritis (OA)) compares the efficacy of Standard in-clinic PT, Sham in-clinic PT, and no in-clinic PT among subjects with symptomatic meniscal tear and OA who were participating in a rigorous home exercise program.

Methods: TeMPO is a 4-center RCT of 4 strategies: 1) Home exercises (HomeEx) focused on lower extremity strengthening and stretching; 2) Home exercises + SMS messaging 3x per week to motivate adherence (HomeEx+SMS); 3) Home exercise, SMS, + PT focused on strengthening, manual therapy, and neuromuscular function (Standard PT); and 4) Home exercise, SMS + Sham PT consisting of ultrasound with energy turned off and light massage distant from the knee joint (Sham PT). The Sham and Standard PT regimens were delivered in 14 sessions over 12 weeks. The primary outcome was change in KOOS Pain between baseline and 3-months, assessed in a linear regression model adjusting for site, baseline Kellgren-Lawrence (KL) grade, and baseline KOOS Pain. A secondary outcome was treatment failure at 3 months, defined as failing to improve by 8 points in KOOS Pain, or receiving an intraarticular injection, or surgery. We also assessed KOOS Pain scores across baseline, 3, 6, and 12 months in a repeated measures model that adjusted for site and baseline KL.

Results: At baseline the 879 randomized subjects had mean age 59.2 (SD 7.8) and mean BMI 29.3 (SD 6.5). 57% were female, and 33% had KL 3 radiographs. We obtained outcome data on 87% of subjects at 3 months and 83% at 12 months. Baseline KOOS Pain score (0-100 with 100 worst) was 46.1 (SD 15.5). Both the Standard and Sham PT groups attended a median of 13 PT sessions per subject. Logs completed every two weeks for the first three months indicated that adherence to home exercises (performing exercises at least three times in the prior week) ranged from 76-82% across the four arms ($p=0.20$).

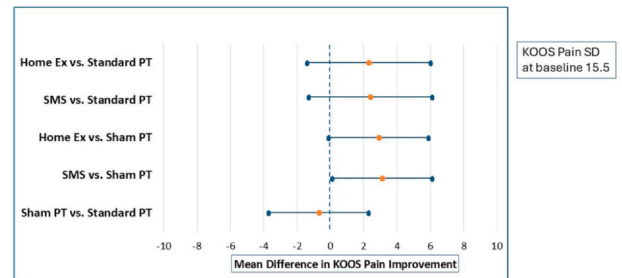
The mean (SD) improvement in KOOS Pain at 3 months was 18.6 (SD 16.9) points in the whole cohort. The Sham and Standard PT arms had virtually identical KOOS Pain improvement from baseline to three months. These in-clinic PT groups improved by ~ 2-3 points (< 0.2 SD) more than the HomeEx and HomeEx + SMS arms (see Forest Plot Figure). These differences were not clinically important or statistically significant. 30-36% of subjects experienced treatment failure at 3 months (36% with HomeEx, 32% with HomeEx+SMS, 30% with Sham PT and 35% with Standard PT; $p=0.58$).

The repeated measures analysis (Figure) showed no clinically important or statistically significant differences between the Standard PT and Sham PT groups at any timepoint. At 6 and 12 months the Standard PT and Sham PT groups reported greater improvement in pain (by ~5

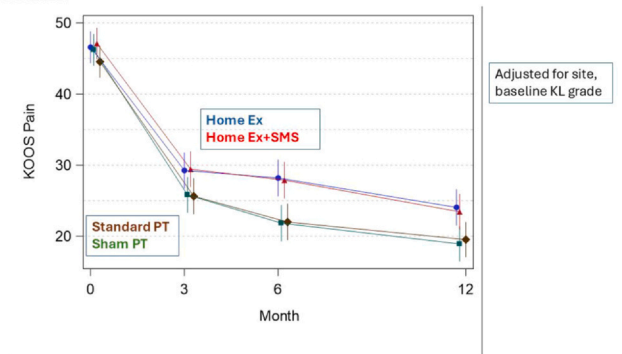
KOOS points, > 0.3 SD, $p < 0.05$) than the groups that did not see a physical therapist.

Conclusions: The outcomes of Standard PT and Sham PT were essentially identical at all time points. Subjects randomized to see a physical therapist (to receive either Sham or Standard PT) reported moderately greater improvement in KOOS Pain scores at six and twelve months than those that did not see a physical therapist. These findings point to sustained benefit from seeing a physical therapist, with identical benefit from receiving Sham and Standard PT. The data further indicate that the active ingredient in the PT program may have been interaction with the therapist rather than the supervision of exercises and manual therapy and that the therapist provided.

Mean difference (95% CI) in KOOS Pain improvement (baseline to 3 months) between pairs of arms



KOOS Pain across 0, 3, 6, and 12 months: Repeated measures models



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EXPLORATION OF FACTORS INFLUENCING TREATMENT ACCESS AND USE IN BLACK INDIVIDUALS WITH ANTERIOR CRUCIATE LIGAMENT INJURY

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Purpose (the aim of the study): Individuals with anterior cruciate ligament (ACL) injury are at high risk of developing knee osteoarthritis (OA). Black individuals with OA have worse pain and self-reported disability than White individuals with OA. Racial disparities in ACL treatment use, such as ACL reconstruction (ACLR) and physical therapy, may contribute to the disparities in OA-related disability. Black individuals with ACL injury are less likely to use ACLR than White individuals with ACL injury. However, factors that influence disparities in ACL treatment use are unknown. We need to understand these factors to address disparities in ACL treatment use and reduce long-term OA-related disability, particularly in Black individuals. Prior qualitative studies on individuals with ACL injury identified several facilitators and barriers to rehabilitation access, but these studies largely did not include Black participants. The purpose of the study was to explore facilitators and barriers to treatment access and use in Black individuals with ACL injury.