

Patients with Social Determinants of Health Deficits Undergoing Total Joint Arthroplasty are Less Likely to Achieve Patient Reported Outcome Measure Benchmarks

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INTRODUCTION: Social determinant of health deficits (SDHDs) have been linked to poor outcomes following total joint arthroplasty (TJA). This study examined the effect of SDHDs on achievement of patient acceptable symptom state (PASS) and minimal clinically important difference (MCID) in patient-reported outcome measures (PROMs) after TJA.

METHODS: This study included a retrospective, single-institution cohort of patients undergoing primary unilateral TJA between 2018 and 2022. PROMs analyzed included KOOS-JR, HOOS-JR, and SF-12. Preoperative PROMs were utilized if completed in the year before surgery, and postoperative PROMs were included between 6 months and 2 years postoperatively. Postoperative achievement of PASS was analyzed for KOOS/HOOS-JR scores and MCID rates were analyzed for KOOS/HOOS-JR and SF-12 scores. Social determinants of health included living alone, transportation access, race and ethnicity, insurance type, social vulnerability index (SVI), and area deprivation index (ADI).

RESULTS: Included in analysis were 2,370 THA and 2,411 TKA patients with completed PROMs. ADI national scores were significantly higher for patients who did not meet HOOS-JR (34.5 versus 30.7, $P = 0.002$) or KOOS-JR (36.7 versus 33.1, $P = 0.006$) PASS, but were significantly lower in patients who did not meet HOOS-JR (29.4 versus 31.7, $P = 0.043$) or KOOS-JR (32.2 versus 34.0, $P = 0.044$) MCID. Patients who did not meet MCID for SF-12 PH had significantly higher ADI national scores for THA (34.8 versus 29.8, $P = 0.002$) and TKA patients (35.6 versus 31.4, $P = 0.007$).

DISCUSSION AND CONCLUSION: Patients with SDHDs, including living in areas with higher deprivation scores, are less likely to meet benchmarks in postoperative PROM scores for joint-specific PROMs and PROM improvement for global PROMs after TJA. As reimbursement becomes tied to PROM performance, it is important we understand the effect of SDHDs to avoid further reduced access for these patients.