

Association of socioeconomic disadvantage with patient-reported physical outcomes after orthopaedic trauma

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Purpose: To determine the association of socioeconomic disadvantage with patient-reported physical outcome measures (PROMs) after orthopaedic trauma.

Methods: A retrospective review of PROMs was performed for operative orthopaedic trauma patients from 2018-2023. Injuries included high- to low-energy trauma and both upper and lower extremities. Patients with postoperative complications were excluded. Area of deprivation index (ADI) was utilized as a surrogate for socioeconomic disadvantage and divided into five cohorts. PROMIS 10 GPH was collected at 6 weeks, 3 months, 6 months, and 1 year postoperatively. A mixed model analysis was performed to compare outcomes of those in different ADI cohorts.

Results: A total of 844 patients met criteria for inclusion in this study. Of these, 313 (37.1%) were in the least socioeconomically disadvantage group. There was a significant difference in the distributions of age, marital status, smoking status, and self-reported race among the ADI five cohorts ($p < 0.002$). Patients with an ADI of 1 or 2 (least socially deprived) had significantly higher PROMIS 10 GPH scores compared to their counterparts in the ADI groups 3/4, 5/6, and 9/10, though all groups saw a similar significant improvement from 6-week to 1-year follow-up.

Conclusion: Socioeconomic disadvantage has a significant association with PROMIS 10 GPH following orthopaedic trauma procedures. Resources need to be directed to patients with an elevated ADI to optimize outcomes.

