# The Influence of Neighborhood Socioeconomic Disadvantages on Patient-Reported Outcomes Following Primary Anterior Cruciate Ligament Reconstruction

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INTRODUCTION: Anterior cruciate ligament (ACL) reconstruction is a common surgical procedure that presents with excellent postoperative patient reported outcomes. However, there remains a small subject population that continues to demonstrate poor surgical outcomes. This study aims to evaluate the role of neighborhood socioeconomic disadvantages on PROMIS outcomes and achievement of minimally clinical important change (MCID) following primary ACL reconstruction.

METHODS: We identified patients who underwent primary arthroscopic ACL reconstruction at our institution between January 1, 2015, and December 31, 2017. Patients with available PROMIS Physical Function (PF), Pain Interference (PI), and Depression (Dep) scores both preoperatively and at a minimum oneyear postoperatively were included for final analysis. MCID was determined using distribution-based methods, specifically by calculating one-half the standard deviation of the preoperative PROMIS scores. ADI scores were assigned based on address location, which was coded into census blocks, and then stratified into four ADI quartiles.

RESULTS: In total, 204 patients met inclusion and exclusion criteria. The mean time to follow up 24.2 months ± 4.3. A significantly higher percentage of patients in the most deprived ADI quartile were black, had government insurance, had a history of tobacco use, and were either obese or morbidly obese. No significant differences were found between the four ADI quartiles for respective PROMIS preoperative impairment or changes in PROMIS score at the final follow-up from their respective preoperative scores. No significant difference was observed in the percentage of patients within each ADI quartile that reached the MCID for PF, PI, or Dep.

DISCUSSION AND CONCLUSION: Despite demographic differences among ADI quartiles, patients in each quartile demonstrated similar percentages in achieving MCID, along with comparable timeframes for reaching this milestone.