

SES Indices Are Associated With Increased Resource Use But Not 90-Day Complication Following TJA

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INTRODUCTION:

Socioeconomic disadvantage has been associated with negative outcomes following total hip (THA) and knee arthroplasty (TKA). The Area Deprivation Index (ADI) and Distressed Community Index (DCI) are composite rankings that score socioeconomic status (SES) using patients home addresses. The purpose of this study was to examine the association of ADI and DCI with outcomes following THA and TKA while controlling for potential confounding covariates.

METHODS:

A series of 4,146 consecutive patients undergoing primary THA and TKA between January 2018 and May 2023 were queried from our institutional total joint registry. 90-day medical and surgical complications and resource utilization were collected. ADI and DCI scores were obtained for each patient and the association between these scores and postoperative outcomes was analyzed.

RESULTS:

ADI and DCI were both associated with patient age, sex, race, comorbidity burden, and smoking status. After controlling for these variables, higher ADI and DCI scores were associated with increased length of stay ($p=0.003$ and $p=0.008$, respectively) but were not associated with the occurrence of any 90-day complication, reoperation, or revision.

DISCUSSION AND CONCLUSION:

SES, as quantified by ADI and DCI, was associated with multiple known risk factors for complication following THA and TKA, but was not independently associated with complication, reoperation, or revision surgery at 90- days postoperatively. While convenient metrics for the quantification of SES, in some populations, ADI and DCI may not be independently associated with detrimental outcomes following THA and TKA.