

The Role of Socioeconomic Background on Outcomes Following Total Hip Arthroplasty

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INTRODUCTION: Disparities in healthcare access and outcomes related to total hip arthroplasty (THA) have long been documented, particularly disadvantaging racial minorities and patients from lower socioeconomic backgrounds. It is widely recognized that individuals with higher socioeconomic status (SES) have better access to healthcare resources, including orthopedic care and better insurance coverage. Access to appropriate, timely, and high-quality care plays a crucial role in improving postoperative outcomes. Socioeconomic status alone can significantly influence overall health status, perhaps affecting candidacy for elective THA, with lower SES individuals having a higher prevalence of cardiovascular risk factors, which can lead to intraoperative and postoperative complications. Additionally, postoperative care and rehabilitation are essential for successful outcomes, but lower SES individuals may face barriers to accessing these services. This study aims to systematically review the current literature and identify overall trends by which demographic and socioeconomic factors impact patient outcomes following THA.

METHODS: We conducted a comprehensive search on databases including MEDLINE, PubMed, Cochrane Library, and EMBASE using various combinations of keywords such as "disparities," "arthroplasty," "hip," "income," "insurance type," "outcomes," "hospital volume," and "socioeconomic status." Only studies published in the United States between 2006 and 2022 and written in English were included. A total of 50 prospective or retrospective studies met our outlined inclusion criteria. We then employed both quantitative and qualitative analyses and adhered to the PRISMA criteria. Two independent investigators reviewed the abstracts of all articles in a blind manner. Articles were initially excluded based on titles and abstracts if they did not clearly pertain to THA and socioeconomic factors, using an established tool for systematic reviews. Full-text articles were then reviewed to determine if they met the appropriate inclusion and exclusion criteria.

RESULTS SECTION: Most patients undergoing THA were female, with an average age of 60 years old. Complications decreased as hospital volume increased, particularly among White patients. Patients in lower-income brackets exhibited a higher prevalence of comorbidities, such as obesity, renal failure, hypertension, and peripheral vascular disease. These patients had lower utilization of THA and a higher risk of readmission. Both Black and White patients with Medicare or Medicaid had higher readmission rates with concurrent complications and worse outcomes. Moreover, lower-income individuals experienced extended hospital stays and were more likely to be discharged to another inpatient facility. Length of stay was affected by lower SES comorbidities and insurance status.

DISCUSSION: It is well documented that minorities and individuals from lower socioeconomic backgrounds are less likely to undergo THA in the United States. This systematic review highlights the disparities in THA utilization and outcomes by gender, race, insurance type, socioeconomic status, and hospital volume.

SIGNIFICANCE/CLINICAL RELEVANCE: Our study emphasizes critical areas to target for programmatic and deliberate interventions that can help reduce inequalities across various social and economic spheres.