OXFORD JOURNAL
OF STUDENT
SCHOLARSHIP

Orthopaedic Care in the U.S.A.

Hugo Michael O'Halloran
hugoohalloran@gmail.com

ABSTRACT

Orthopaedic care is a necessity for many patients and often requires timely evaluation, intervention, and follow-up. Prior research suggests that patients from underrepresented racial groups and those insured through public programs experience barriers to accessing this care. This review examines published studies from 2010–2025 that evaluate disparities in orthopaedic care in the United States across multiple stages of treatment, including diagnosis, surgical intervention, and rehabilitation. Articles were identified through database searches and reviewed to compare patterns of access, wait times, and outcomes by race and socioeconomic status. Across the reviewed literature, disparities were consistently observed throughout the orthopaedic care process, indicating persistent inequities in access and outcomes.

INTRODUCTION

Most individuals require orthopaedic care at least once in their lifetime, whether for an acute injury sustained in childhood or a degenerative condition later in life. Despite the widespread need for orthopaedic services, access to timely and appropriate care is not uniform across patient populations. Delays in evaluation and treatment can hinder recovery and worsen clinical outcomes.

Differences in orthopaedic care have been associated with social determinants of health, including race, insurance status, and socioeconomic status (1). Hospitals and private practices may prioritize patients with private insurance, which can result in longer wait times, greater travel distances, or limited treatment options for patients insured through public programs or without insurance. These disparities affect continuity of care, treatment availability, and surgical access. Although policies such as Medicaid expansion have increased insurance coverage nationwide, patients insured through Medicaid continue to experience reduced acceptance by orthopaedic practices and increased travel burdens (2).

Race has also been shown to influence access to orthopaedic care. Patients from underrepresented racial groups and lower socioeconomic backgrounds experience delays in both urgent and non-urgent care, prolonged diagnostic timelines, and reduced access to follow-up services. These barriers are associated with worse reported outcomes, higher complication rates, and reduced recovery following treatment (3).

Existing studies often focus on narrow patient populations, specific procedures, or single determinants such as race or insurance status. To address this limitation, this review synthesizes findings from published studies conducted across the United States to evaluate how disparities in orthopaedic care

manifest throughout major stages of the care process. This paper examines how race and socioeconomic status are associated with differences in access, wait times, treatment pathways, and outcomes in orthopaedic care.

METHODS

A literature review was conducted using PubMed and Google Scholar. Search terms included: orthopaedic, orthopedic, access to care, insurance status, Medicaid, race, socioeconomic status, and disparities. Searches were limited to studies conducted in the United States and published between 2010 and 2025. From 388 initial results, 9 articles were identified as relevant to disparities in access to orthopaedic care.

Studies were excluded if they focused primarily on non-access factors such as urban versus rural geography or if they addressed highly specialized subspecialty populations without broader relevance. Included studies evaluated access, wait times, treatment differences, or outcomes related to race or socioeconomic status.

RESULTS

Across all reviewed studies, disparities in orthopaedic care were consistently observed. These disparities most commonly manifested as prolonged wait times, delayed diagnosis, and reduced access to surgical and rehabilitative services. Patients with lower socioeconomic status and patients from underrepresented racial groups experienced differences across multiple stages of orthopaedic care.

Socioeconomic Status

Socioeconomic status encompasses income, insurance coverage, employment, and living environment. These factors influence the availability and timeliness of orthopaedic care.

Insurance Disparities

Patients who are uninsured or insured through Medicaid face challenges in securing orthopaedic appointments, as many practices limit acceptance of publicly insured patients. In some settings, privately insured patients were substantially more likely to obtain appointments than Medicaid patients (2). Although the Affordable Care Act increased insurance coverage for many individuals, patients insured through Medicaid continue to travel farther for care, and a majority of orthopaedic practices do not accept Medicaid (2).

Studies examining total knee arthroplasty demonstrated that some low-income patients delayed surgery until becoming eligible for Medicare at age 65. This delay was not observed in settings with universal healthcare systems (2). Additional studies found that Medicaid patients undergoing shoulder stabilization surgery experienced longer wait times, greater disease severity at presentation, and increased need for complex surgical interventions (2).

Financial and Environmental Determinants of Care

Environmental and community-level factors also influence access to orthopaedic care. Patients living in areas with higher deprivation indices were found to have reduced access to services despite potentially higher health risks (4). Patients insured through Medicaid or without insurance were more likely to receive advanced-stage cancer diagnoses compared to patients with greater financial resources (4).

Research on total joint arthroplasty indicated that some patients were required to travel longer distances to reach higher-value hospitals. Limited bed availability at these centers often resulted in additional delays, contributing to progression of disease prior to treatment (5). In contrast, studies evaluating telemedicine found no significant difference in attendance rates among patients from high-deprivation areas, suggesting that remote care may reduce access barriers when implemented appropriately (6).

Racial Disparities in Orthopaedic Care

Patients from Black, Hispanic, and other underrepresented racial groups experience differences in access and outcomes compared to White patients. These differences include longer times to initial presentation, delays in diagnostic imaging, prolonged intervals between diagnosis and treatment, and greater disease severity at presentation (3).

In pediatric populations, underrepresented racial groups were more likely to receive care outside appropriate outpatient settings and had higher rates of emergency department revisits prior to orthopaedic consultation (3). Telemedicine studies reported lower appointment rates among Asian and Hispanic patients, as well as patients whose primary language was neither English nor Spanish (7).

Delays in presentation and diagnosis were associated with increased likelihood of surgical intervention among pediatric patients from underrepresented racial groups. Imaging was less frequently obtained for these patients despite similar presenting complaints and diagnostic codes. Delays in bracing and surgical intervention were also observed, with longer wait times for both operative and non-operative treatments (3).

Post-operative disparities persisted, including higher rates of complications, increased operative times, and differences in pain management. Patients from underrepresented racial groups received fewer opioid medications upon discharge and demonstrated lower rates of optimal pain control. Follow-up care and physical therapy utilization were also reduced, contributing to poorer functional recovery (3).

Effects of COVID-19

The COVID-19 pandemic further exacerbated disparities in orthopaedic care. A comparative study of adult knee arthroplasty evaluated outcomes before and after the pandemic at Zuckerberg San Francisco General Hospital (ZSFGH) and the University of California, San Francisco (UCSF). ZSFGH served a higher proportion of publicly insured patients and patients from underrepresented racial groups.

Although surgical volume decreased at both institutions, ZSFGH experienced a greater reduction in case volume, resulting in longer wait times for surgery (8). Reduced surgical capacity disproportionately affected patients less likely to access private care. Extended delays led to progression of disease, increased procedural complexity, and higher overall costs for patients already facing access barriers (8).

DISCUSSION

This review demonstrates that disparities in orthopaedic care persist across multiple stages of treatment in the United States. Differences in access, timing, treatment options, and outcomes are associated with both socioeconomic status and race. These factors influence patient experiences from initial presentation through post-operative follow-up.

The findings should be interpreted in the context of several limitations. The number of included studies was limited, and many focused on specific procedures or geographic regions. Additionally, most studies relied on observational data, which limits the ability to identify underlying mechanisms driving observed disparities. Despite these limitations, consistent patterns across studies support the presence of inequities throughout the orthopaedic care process.

Future research should more directly examine the combined effects of race and socioeconomic status, as few studies evaluate patients affected by both factors simultaneously. Further investigation into policies and care models that reduce access barriers for publicly insured and underrepresented populations may help inform strategies to improve equity in orthopaedic care (9).

CONCLUSION

Access to orthopaedic care in the United States is influenced by factors beyond clinical need, including socioeconomic status and race. This review identified consistent disparities in access, treatment, and outcomes across the orthopaedic care continuum. While programs such as Medicaid aim to address these inequities, barriers persist. Strategies including expanded telemedicine use, policy refinement, and targeted infrastructure improvements may help reduce disparities and improve access to orthopaedic care.

REFERENCES

1. Ziedas, Alexander et al. “Social Determinants of Health Influence Access to Care and Outcomes in Patients Undergoing Anterior Cruciate Ligament Reconstruction: A Systematic Review.” Arthroscopy : the journal of arthroscopic & related surgery : official publication of the Arthroscopy Association of North America and the International Arthroscopy Association vol. 38,2 (2022): 583-594.e4. doi:10.1016/j.arthro.2021.06.031
2. Ferati, Resad, et al. "Socioeconomic Status Impacts Access to Orthopaedic Specialty Care." JBJS Reviews, vol. 10, no. 2, Feb. 2022, article e21.00139. DOI: 10.2106/JBJS.RVW.21.00139
3. Sborov, Katherine D et al. “Racial and Ethnic Disparities in Pediatric Musculoskeletal Care.” Current reviews in musculoskeletal medicine vol. 16,10 (2023): 488-492. doi:10.1007/s12178-023-09860-0
4. Koons, Abigail et al. “Disparities in Musculoskeletal Oncology.” Current reviews in musculoskeletal medicine vol. 17,12 (2024): 527-537. doi:10.1007/s12178-024-09925-8
5. Ramirez, Gabriel et al. “Does Hypothetical Centralization of Revision THA and TKA Exacerbate Existing Geographic or Demographic Disparities in Access to Care by Increased Patient Travel Distances or Times? A Large-database Study.” Clinical orthopaedics and related research vol. 480,6 (2022): 1033-1045. doi:10.1097/CORR.0000000000002072
6. Ye, Ivan B et al. “Telemedicine Improves Access to Care for Spine Patients With Low Socioeconomic Status.” Global spine journal vol. 14,1 (2024): 49-55. doi:10.1177/21925682221092398
7. Xiong, Grace, et al. "Telemedicine Use in Orthopaedic Surgery Varies by Race, Ethnicity, Primary Language, and Insurance Status." Clinical Orthopaedics and Related Research, vol. 479, no. 7, July 2021, pp. 1417–1425. DOI: 10.1097/CORR.0000000000001775
8. Soriano, Kylen K J, and Paul Toogood. “Effect of Institution and COVID-19 on Access to Adult Arthroplasty Surgery.” Arthroplasty today vol. 14 (2022): 86-89. doi:10.1016/j.artd.2022.01.027
9. Handcox, Jordan E., et al. "Providing Orthopaedic Care to Vulnerably Underserved Patients: AOA Critical Issues." The Journal of Bone and Joint Surgery, vol. 104, no. 19, 5 Oct. 2022, article e84. DOI: 10.2106/JBJS.21.01349.