

## **Risk Factors Driving ‘No-Shows’ Across Orthopaedic Subspecialty Outpatient Clinics**

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**INTRODUCTION:** Unattended clinic visits, or patient no-shows, can have harmful effects on patient health and well-being, and an unfavorable impact on the revenue stream and financial efficiency of the health system. Studies have found that notable risk factors for clinic no-shows across all medical specialties include: younger age, Black/African American or Hispanic race, government insurance coverage, and lower average household income. The objective of this study was to further assess for the risk factors associated with clinic no-shows, specifically across orthopaedic subspecialties in a large, tertiary care academic center.

**METHODS:** Clinic appointments labeled as ‘completed’ or ‘no-show’ during a two-and-a-half-year period were retrospectively collected from an outpatient orthopaedic department at a single institution. Patient demographics, socioeconomic status, date of appointment creation, insurance coverage, and visit type, referral, and schedule status were evaluated. Clinic visits were cohort matched in accordance with patient age and sex, visit subspecialty, and appointment type.

**RESULTS:** A total of 22,154 clinic appointments were included. Cohorts were matched according to visit status, for an even [ratio of ‘completed’ to ‘no show’ visits](#). 22.3% of all visits were scheduled with Foot and Ankle specialists, 17.8% with Non-operative Sports Medicine/[Physiatry](#), and 14.1% with Shoulder and Elbow. [43.2% of all patients had Medicaid/Medicare insurance](#). Unmarried (46.9%) and unemployed (25.5%) patients were statistically significantly more likely to ‘no show’ appointments ( $p<0.001$ ). Mean patient social deprivation index (SDI) was higher among no-show ( $44.06\pm27.9$ ) compared to completed appointments ( $41.46\pm27.2$ ,  $p<0.001$ ). 35.5% of visits were designated as ‘New,’ 56.3% as ‘Return,’ and 8.2% as ‘Post-Operative.’ 32.7% of appointments had an associated referral and 1.9% were self-scheduled by patients. Average time between creation and date of appointment was  $28.58\pm44.2$  days. Multivariable binary logistic regression demonstrated a statistically significant relationship between no-show appointments and being unmarried, unemployed, or Black/African American, having Medicaid/Medicare insurance, or a higher SDI ( $p<0.010$ ).

**DISCUSSION AND CONCLUSION:** Our results are consistent with the findings of previous studies analyzing the risk factors for outpatient clinic no-shows. Further studies may look to evaluate specific interventions aimed at reducing these no-show rates. An understanding of the “high risk” patient and nonpatient factors found in this study is critical when implementing any interventions to maximize their efficacy.