

C21

Shivasuryan Vummidi

Advisor(s): Carl Paulino

Socioeconomic Risk Factors Associated with Perception and Willingness to Enroll in Orthopedic Telemedicine Among an Underserved Urban Racial Minority Cohort: A Prospective Study

Background: Previous literature demonstrated successful Orthopaedic telemedicine implementation and expansion. However, these studies fail to fully represent minority racial groups within low-SES brackets. Therefore, this study aimed to evaluate the perception of telemedicine among underrepresented orthopedics patients within underserved communities.

Methods: Following IRB approval, consenting patients filled a 19-question survey to assess factors associated with perception of telemedicine. Demographic factors included age, sex, race, education, insurance, travel distance/transportation modality, travel dependence, clinic subspecialty, and previous telehealth use. Univariate and multivariate logistic regressions identified independent risk factors associated with future telehealth participation.

Results: 364 patients were enrolled, of whom 21.8%(80/364), 20.4%(75/364), and 12.8%(47/364) were respectively Foot and Ankle, Sports Medicine, and Spine patients. 85.2%(310/364) and 67.9%(247/364) were Black and Female, respectively. Mean cohort age was 46.3(IQR=32.8-62.0).

While 60.5%(222/364) of patients did not believe telemedicine could resolve their current visits, 59.4%(218/364) were interested in future telemedicine visits. Multivariable logistic regression found that less than high school education(OR=0.38, 95% CI=0.21-0.68), point of service insurance(OR=0.038, 95% CI=0.0015-0.39), and spine surgery visits(OR=0.10, 95% CI=0.036-0.28) were significantly less likely to enroll in future telehealth visits. In contrast, pediatric Orthopaedic patients(OR=13.55, 95% CI=2.19-141.25), independent travelers(OR=2.61, 95% CI=1.30-5.38), home attendees(OR=4.34, 95% CI=1.62-13.14), as well as positive perception of telemedicine(OR=2.59, 95% CI=1.54-4.46) were significantly more likely to enroll.

Conclusion: Telemedicine can improve Orthopaedic patient assessment and management, but its adoption varies by subspecialty, education, insurance, location, and travel dependence.