

Lower Socioeconomic Status Negatively Impacts Access to Physical and Occupational Therapy

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INTRODUCTION: Physical and Occupational therapy (PT/OT) are critical following orthopaedic surgery to improve outcomes and avoid complications. Lower socioeconomic status (SES) is associated with reduced access to health care and increased rates of surgical complications. The purpose of our study is to establish the relationship of SES and access to PT/OT.

METHODS: We compiled county-level population, land area, and business data from 2020 United States (US) Census Bureau Reports. SES data was collected from the 2020 Centers for Disease Control Social Vulnerability Index (SVI) and Area Deprivation Index (ADI; population weighted to create a county-level measure). PT/OT businesses were identified from the US Census County Business Patterns dataset using the North American Industry Classification System code 621340. Density of business by county population and land area were calculated and regression analyses performed to evaluate SES as a predictor of these measurements.

RESULTS: Table 1 shows top and bottom 5 counties by density of PT/OT per 100,000 residents. For counties of all sizes, we observed a strong inverse relationship between county-level ADI and PT/OT density, for both per person and per person per square mile measures ($R^2 = 0.97$ and 0.94 ; Figures 1 & 2, respectively). When only considering larger counties, we observed that SVI, especially the SES domain, began to display a stronger inverse relationship with PT/OT density ($R^2 = 0.59$ and 0.28 ; Figures 3 & 4, respectively).

DISCUSSION AND CONCLUSION: There is a strong inverse correlation between the density of PT/OT services and SES measures, particularly ADI. This may impact postoperative recovery and complication rates in orthopaedic patients.

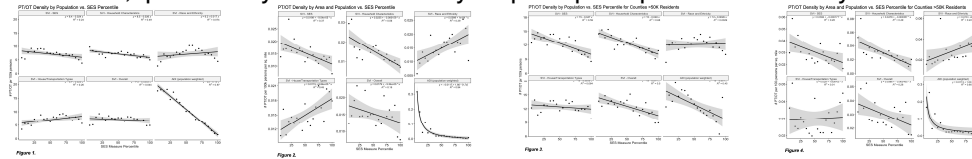


Table 1. Top/Bottom 5 Counties by Physical Density (100,000 person)

County	#PT/OT Per 100k
Top 5	
Ocean County, New Jersey	34,211
Rensselaer County, New York	33,968
Bergen County, New Jersey	27,658
Maricopa County, New Jersey	27,490
Hidalgo County, Hidalgo	26,679
Bottom 5	
Polk County, Florida	5,517
Stanislaus County, California	6,381
San Bernardino County, California	6,555
Kern County, California	6,799
Sacramento County, California	6,814