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William S. Douglas
Maine Medical Center

Et al.

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A Descriptive Analysis of Patient Demographics at a Sports Medicine Clinic During the COVID-19 Pandemic

Authors

William S. Douglas, Williams Dexter, Amy Haskins PhD, and Christina Holt

RESEARCH BRIEF**A Descriptive Analysis of Patient Demographics at a Sports Medicine Clinic During the COVID-19 Pandemic**William Douglas, DO,¹ William Dexter, MD,¹ Amy Haskins, PhD,¹ Christina Holt, MD¹¹Maine Medical Center, Departments of Sports Medicine and Family Medicine, Portland, ME**Keywords:** race factors, COVID-19, sports medicine, access to health care, health care disparities

The COVID-19 pandemic has disrupted the health care system in the United States and highlighted underlying social and racial injustices and inequities that plague it. In the United States, Black, Indigenous, and people of color (BIPOC) are more likely to become infected, hospitalized, or die from COVID-19 than White people.^{1,2,3} Nowhere has this been more apparent than in Maine, a state where 1.42% of the population identifies as Black, and 94.25% of the population identifies as White.⁴ Yet, during the summer of 2020, Maine's Black population accounted for 22% of the state's COVID-19 cases, whereas Maine's White population accounted for 66.8% of total cases.⁵ Members of BIPOC communities have historically faced reduced quality of care versus White communities.⁶ Furthermore, the pandemic has exacerbated these underlying health care disparities.⁷ One study even suggested that BIPOC patients' access to outpatient care has been lower than that of White patients.⁸ Given the disparate burden of COVID-19 on the BIPOC community in Maine, we sought to understand the demographic makeup and assess unequal racial and ethnic representation of the outpatient population in our sports medicine clinic during the 2020 COVID-19 pandemic.

METHODS

We collected demographic data on all patients who visited the Maine Medical Partners Orthopedics and Sports Medicine outpatient clinics in South Portland, Maine, for two 3-month periods: the summer before the COVID-19 pandemic (July 1, 2019 to September

30, 2019) and the summer of 2020 (July 1, 2020 to September 30, 2020). Information obtained included race, ethnicity, marital status, sex, age, employment status, type(s) of insurance, preferred language, and 'interpreter needed' status. Chi-square tests were used to retrospectively compare patient characteristics between the 2 time periods. Primary outcomes included significant differences in race and ethnicity representation between the 2 time periods. Secondary outcomes included changes in all other demographic information. Demographic data used for this study was collected from self-identified information in standard patient intake forms uploaded into the electronic medical record. This study received IRB exemption from Maine Medical Center.

RESULTS

During the 2 time periods, the racial breakdown of patients did not significantly differ. White patients accounted for most patients seen in the 2019 (91.2%, n = 2672) and 2020 timeframe (90.3%, n = 2425) ($P = .25$; Table 1). The proportion of BIPOC patients was similar between 2019 (7.4%, n = 198) and 2020 (7.8%, n = 189) ($P = .25$). Regarding ethnicity, the proportion of Hispanic patients increased significantly from 1.1% (n = 30) in 2019 to 2.0% (n = 48) in 2020 ($P = .01$).

Mean age was similar between the 2 time periods (49.5 years in 2019, and 50.6 years in 2020; $P = .07$). However, between the 2 time periods, the percentage of 0- to 9-year-old patients increased (1.9% in 2019 vs 2.4% in 2020, $P = .007$); the percentage of 66- to 79-year-old patients increased (20.7% in 2019 vs 23.5% in 2020, $P = .007$); and the proportion of 10- to 17-year-old patients decreased (9.1% in 2019 vs 6.9% in 2020, $P = .007$).

Correspondence: William Douglas, DO
Department of Sports Medicine, Maine Medical Center
Portland, ME
wsdouglas@gmail.com

Table 1. Demographic Data

Variables	July-September 2019 (n = 2672)	July-September 2020 (n = 2425)	P value
Sex, No. (%)			
Female	1402 (52.5)	1250 (51.5)	0.51
Male	1270 (47.5)	1175 (48.5)	
Age, y, No. (%)			
0-9	52 (1.9)	59 (2.4)	0.007
10-17	242 (9.1)	168 (6.9)	
18-65	1698 (63.5)	1528 (63.0)	
66-79	553 (20.7)	569 (23.5)	
80+	127 (4.8)	101 (4.2)	
Race, No. (%)			
Black or African American	109 (4.1)	93 (3.8)	0.25
Other	89 (3.3)	96 (4.0)	
Unknown/Refused	36 (1.3)	46 (1.9)	
White or Caucasian	2438 (91.2)	2190 (90.3)	
Ethnicity, No. (%)			
Hispanic	30 (1.1)	48 (2.0)	0.02
Non-Hispanic	2605 (97.5)	2332 (96.2)	
Unknown/Refused	37 (1.4)	45 (1.9)	
Language, No. (%)			
English	2542 (95.2)	2331 (96.1)	0.12
Other	127 (4.8)	94 (3.9)	
Interpreter needed, No. (%)			
Yes	92 (3.4)	72 (3.0)	0.34
No	2580 (96.6)	2353 (97.0)	
Insurance, No. (%)			
Commercial	1506 (56.4)	1328 (54.8)	0.03
Medicaid	272 (10.2)	274 (11.3)	
Medicare	716 (26.8)	664 (27.4)	
Other government plan	60 (2.2)	78 (3.2)	
None	118 (4.4)	81 (3.3)	
Marital status, No. (%)			
Married/Domestic partner	1366 (51.1)	1324 (54.6)	0.11
Single	966 (36.2)	803 (33.1)	
Divorced/Legally separated	194 (7.3)	180 (7.4)	
Widowed	129 (4.8)	102 (4.2)	
Unknown/refused	17 (0.6)	16 (0.7)	
Employment status, No. (%)			
Employed (full, part, self)	1270 (47.6)	1262 (52.0)	0.008
Retired	616 (23.1)	531 (21.9)	
Disability	151 (5.6)	123 (5.1)	
Student	101 (3.8)	63 (2.6)	
Not employed	533 (20)	446 (18.4)	

Insurance carriers varied as well, with a greater percentage of Medicaid, Medicare, and “other government” insurances (39.2% in 2019 vs 41.9% in 2020, $P = .03$), and fewer commercial carriers (56.4% in 2019 vs 54.8% in 2020, $P = .03$). Concerning employment, the percentage of full-time workers increased significantly from 34.0% (2019) to 37.2% (2020) ($P = .03$). The percentage of people with a disability dropped from 5.6% to 5.1%, and those who were unemployed dropped from 20% to 18.4% ($P = .03$).

No statistical change occurred regarding the need for an interpreter, language spoken, or marital status between the 2 time periods.

DISCUSSION

Our retrospective analysis showed that representation of BIPOC patients in our outpatient sports medicine clinic did not decrease during the COVID-19 pandemic. In fact, our analysis showed a significant increase in the proportion of patients identifying as Hispanic.

These results are reassuring in that, at least in our clinic population, racial representation was not affected during the COVID-19 pandemic. To our knowledge, there are no other studies that directly assess racial/ethnic demographic representation in outpatient clinics during the COVID 19 pandemic.

The significant decrease in the proportion of privately insured patients in our clinic during the pandemic is consistent with findings from another study. Specifically, Whaley et. al showed decreased use of elective care health services by the privately insured during the initial phases of the pandemic.⁹ However, unlike in our study, we did not find studies that directly compared demographic representation of privately versus publicly insured patients during the COVID-19 pandemic. Of note, the decreased proportion of 10- to 17-year-old patients during the pandemic may be attributed to reduced organized and community sports, which resulted in fewer opportunities for injury.

Limitations of this study include the potential lack of generalizability of our findings given the low baseline proportion of BIPOC patients in our study population. They also include inherent limitations of self-identified demographic data in our electronic health record.

CONCLUSIONS

Despite well-documented disparities in general regarding access to health care, as well as the unequal impact of COVID-19 on BIPOC communities in Maine and across the nation, we did not detect reduced representation of BIPOC

patients in our outpatient sports medicine clinic during the 2020 COVID-19 pandemic.

Conflicts of Interest: None

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