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Race, Ethnicity, and Social Economic Status are Underreported in Top Orthopedic Journals

Introduction: Ethnicity, race, and socioeconomic status (SES) can result in different outcomes and treatments for patients in all fields of medicine. In orthopedic surgery, this appears to be the case in certain subspecialties; therefore, ethnicity, race, and SES should be included in all studies, when applicable, to ensure proper treatment for unique patient populations. The purpose of this study was to determine the number of articles in top orthopedic journals that included such documentation within the patient characteristics table.

Methods: Top 2019 orthopedics journals, not including subspecialties, based on impact factors were selected for evaluation. These include *The Journal of Bone and Joint Surgery (JBJS)* and *Clinical Orthopedics and Related Research (CORR)*. Studies conducted outside the United States and lacking a characteristic table were excluded in addition to any bench research. This study considered race, income, education, and insurance and quantified the percentage in which race and ethnicity and these other social economic descriptors factored into these journal's published studies. If any of these factors were considered in the study, further investigation was sought to determine their inclusion in a multivariable regression model and to quantify the number of studies which reported the effects. We report counts and percentages of reporting status in each journal, and test equality of reporting status distributions between the journals using Fisher exact tests.

Results: Only 56/159 (35.2%) of journal articles between *JBJS* and *CORR* reported race in table 1. Of the 99 papers that reported a multivariable regression model, only 30.3% included race in the regression, with only 21.1% reporting on the effect size. Similar trends are seen for ethnicity and SES, with 13.8% of papers reporting Hispanic ethnicity, and 8.2%, 14.5%, & 10.7% reporting income, education or insurance in table 1, respectively.

These reporting rates did not differ drastically between *CORR* and *JBJS* except with regards to race (p-value = .008, *CORR* = 47.1%, *JBJS* = 26.4%) and whether race was included in a multivariable regression model (p-value=.027, *CORR* = 42.9%, *JBJS* = 21.1%).

Conclusions: Race, ethnicity, and SES seem to be underreported in some orthopedic journals such as *CORR* and *JBJS*. *CORR* does a slightly better job at reporting race, but still reports race in under 50% of their papers from 2019. It is important to report these factors in studies to identify whether certain subgroups of patients might be at a higher risk for complication or some adverse event.