

TRENDS IN THE MORBIDITY AND MORTALITY OF COVID-19 IN DIFFERENT ETHNIC GROUPS AND GENDER IN A LARGE BRAZILIAN CITY

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Abstract

As the Coronavirus Disease 2019 (COVID-19) outbreak spread, evidence has emerged that gender and race would bear a disproportionate impact on the morbimortality of COVID-19. Here, we conducted a retrospective observational study using the TabNet/DATASUS platform of the city of São Paulo. COVID-19 records from March 2020 thru December 2021 were included, and we evaluated the temporal trends of confirmed cases and case fatality rate by gender and ethnicity. Statistical analysis was performed using the R-software and the BioEstat-software, considering $p < 0.05$ significant. From March/2020 to December/2021, 1,315,160 COVID-19 confirmed cases were recorded (57.1% females), and 2,973 deaths were due to COVID-19. Males presented higher median mortality (0.44% vs 0.23%; $p < 0.05$) and ICU admission rates (0.34% vs 0.20%; $p < 0.05$). Men were also associated with a higher risk of death ($RR = 1.28$; $p < 0.05$) and a higher chance of requiring ICU care ($RR = 1.29$; $p < 0.05$). The black ethnicity was associated with a higher risk of death ($RR = 1.19$; $p < 0.05$). White patients were more likely to require ICU admission ($RR = 1.13$; $p < 0.05$), whereas browns were associated with a protective effect ($RR = 0.86$; $p < 0.05$). Further, men presented a higher chance of death than women across the three major ethnic groups: whites ($RR = 1.33$; $p < 0.05$), blacks ($RR = 1.24$; $p < 0.05$), and browns ($RR = 1.35$; $p < 0.05$). In this study of COVID-19 in São Paulo, men were associated with worse outcomes, including in the three major ethnicities in the population. Blacks exhibited a higher risk of death, whites were more likely to require intensive care, and browns were at protection from ICU hospitalization.

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