

SELF-REPORTED ORAL HEALTH CONDITIONS OF THE SUBJECTS TESTED FOR COVID-19

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The coronavirus disease 2019 (COVID-19) is a severe pandemic disease primarily affecting the respiratory system of infected individuals worldwide. The morbidity and mortality rate is much higher with COVID-19 in the United States of America. The symptoms of COVID-19 include fever, cough, and in more severe cases, leading to difficulty breathing and causing death. The COVID-19 patients often experience oral and gastrointestinal complications, loss of taste and smell. Underserved populations and patients with hypertension and diabetes are disproportionately susceptible to COVID-19 than other ethnicities. *Objective:* To investigate a correlation between COVID-19 symptoms, present medical conditions and self-reported oral health status. *Methods:* The institutional review board (IRB #20-05-998) approved the study. Five-hundred and ten (n= 510) patients (ages 1-91) of various ethnic backgrounds approached at COVID-19 testing sites in Nashville, TN were randomly selected for this study. A standardized questionnaire regarding present COVID-19 symptoms, oral health status and history of systemic disease has been instrumented. A frequency analysis was used to assess oral health status for subjects tested for COVID-19 symptoms. In addition, Chi-square tests were performed to determine a subset of symptoms and medical conditions significantly associated with oral health ($p < .05$), respectively. *Results:* Our data indicates there is a significant variation in those that reported gum bleeding while brushing and experiencing the common COVID-19 symptoms—loss of taste/loss of smell ($p= 0.045$) and chills ($p= 0.009$). Statistical significance also exists between those that reported tooth sensitivity and hypertension ($p=0.004$). Our results demonstrate that certain testing participants with COVID-19 symptoms had challenges in oral inflammation and potential caries. *Conclusions:* The data collected from this self reported oral status with viral symptoms and systemic diseases suggest that there is a relationship present, although there is not enough evidence to support the causal relationship between these variables.