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TITLE: Ethnicity, COVID Severity And Periodontal Status With SARS-CoV2 Infection

PREFERRED PRESENTATION TYPE: Poster

SCIENTIFIC GROUP/NETWORK CATEGORY: Periodontal Research-Diagnosis/Epidemiology

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ABSTRACT BODY:

Objectives: SARS-CoV2 accesses the body across mucosal surfaces, largely those of the upper respiratory tract including the oral cavity. In the UK, those of South Asian heritage (SA group) were considered more affected by COVID than those of white British heritage (WB group). This study aimed to investigate relationships between periodontal status, self reported COVID severity and other factors in 247 participants in a study of cellular and humoral innate immunity focused on these ethnic groups.

Methods: Participants completed a range of questionnaires related to factors such as age, ethnicity and diabetes status and underwent a periodontal assessment including full intraoral charting. Summary variables, including PISA scores, were generated.

Results: 30% of participants had a PSR score of ≤ 2 , 52% PSR=3 and 19% PSR=4. Periodontal status (sites probing over both 3mm and 5mm, and PISA score) was impacted by smoking (20 participants), Mean CSS was greater ($p=0.0322$) in those of SA heritage (46.55, SD 36.69) than those in the WB group (36.92, SD 37.23), and in women (44.34, SD 37.98 versus 32.42, SD 33.76, $p=0.0346$) but not in smokers or those with diabetes. There were weak negative correlations ($\rho = -0.12$) approaching statistical significance between CSS and the number of sites probing $>3\text{mm}$ and $>5\text{mm}$, but both these periodontal variables and smoking status were not related to ethnicity.

Conclusions: These results suggest that further investigation is needed to better understand interactions between periodontal status, ethnicity and SARS-CoV2 severity.

ONE SENTENCE SUMMARY: In this study population, periodontal health was impacted by smoking, and COVID severity by ethnicity, but there was minimal evidence of association between periodontal status and COVID severity score.