

Exploring the Correlation between Oral and Systemic Health Status Among COVID-19–Affected Patients: A Cross-Sectional Study in Bhopal City

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ABSTRACT:

Background: Coronavirus disease (COVID-19) has been linked with multisystem involvement and may influence oral health. Pain plays an important role in influencing anxiety and depression among patients, and understanding this relationship is important for comprehensive patient care to evaluate the correlation between oral and systemic health among COVID-affected patients.

Materials & Methods: A cross-sectional study was conducted among 200 post-COVID participants. Data on systemic and psychological variables were collected using a structured questionnaire. Pain was assessed using the Visual Analog Scale (VAS), while anxiety and depression were evaluated using validated measures. Oral health was assessed using DMFT index, OHI-S, Gingival Index, and periodontal status. Pearson correlation and multiple linear regression analyses were performed using SPSS version 30 ($p < 0.05$).

Results: DMFT showed a positive correlation with the Gingival Index, while OHI-S was positively correlated with anxiety and depression. Pain was found to be associated with anxiety and depression. The Gingival Index was associated with breathlessness on exertion. Regression analysis identified DMFT, OHI-S, periodontal status, and breathlessness as significant predictors of self-rated health ($p < 0.05$). The model explained 21.6% of the variance (Adjusted $R^2 = 0.189$, $p < 0.001$). Conclusion: Oral health was significantly associated with systemic health indicators in COVID-affected patients. These findings highlight the importance of integrating oral health into post-COVID care.

KEY WORDS: COVID-19, Oral Health, Systemic Health, Periodontal Disease, DMFT, OHI-S.