

## **Association between taste sensation and dental caries experience among dental students**

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High sugar intake is related to high caries experience. High sugar intake is found to be prevalent among individuals who have a preference for sweet substances. Sensitivity to taste has been implicated in the preference for or rejection of some foods. It has been shown that TAS2R38 gene strongly mediate bitter and sweet taste sensations as well as the sensitivity to compounds like 6-n-propylthiouracil (PROP) which is a known bitter substance.

The objective of this study was to determine the association between coronal dental caries (Decayed Missing and Filling teeth) and the level of taste sensation as determined by 6-n-propylthiouracil among dental students.

Coronal caries and restorations in permanent dentition were assessed in 78 healthy first year dental students aged 20-25 years. A filter paper containing PROP was used to determine the subjects' inherent ability to perceive bitter and sweet taste sensations. Subjects were categorized in to three groups; super tasters (>60), medium tasters (12-60) and non-tasters (<12) based on the modified green scale which depends on the sensitivity to PROP. The data were analyzed using Shapiro-wilk and Kruskal- wallis tests.

The mean DMFT of non-tasters, medium tasters and super tasters were 1.64±2.04, 2.38±3.24 and 1.96±2.31 respectively. The differences between the three groups were not statistically significant (P= 0.7). The findings of the present study are in agreement with some previously reported studies. However the presence of evidence to the contrary warrants further investigation using larger populations.