

CAN FUNGIFORM PAPILLAE PREDICT THE RISK OF DENTAL CARIES?

Dr. Anjana Sathyanath¹, Dr. Shruti Eshwar¹, Dr. B.K.Srivastava¹, Dr. Vipin Jain.K¹

¹Department of Public Health Dentistry, K.L.E Society's Institute of Dental Sciences, Bangalore.

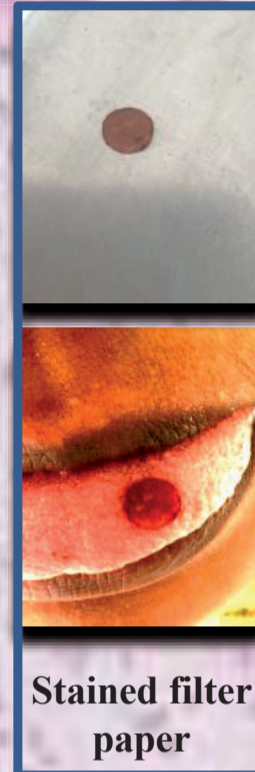
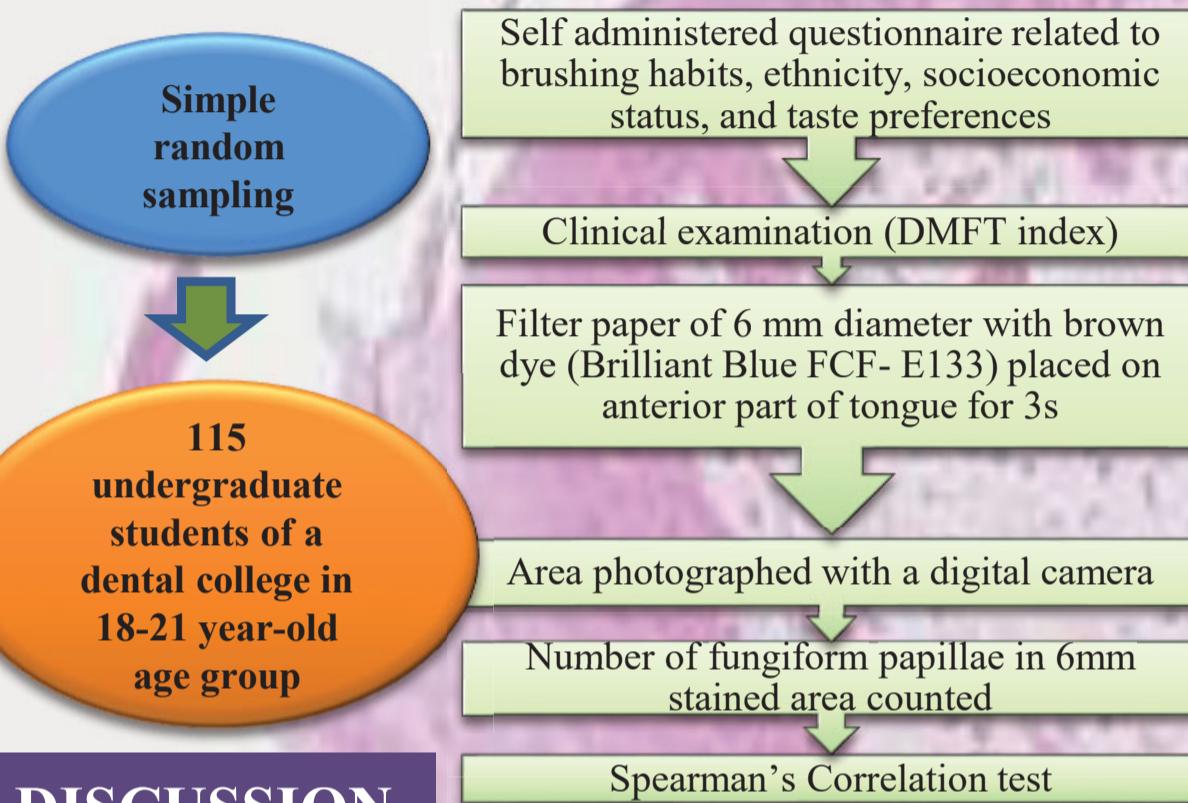
INTRODUCTION

Fungiform papillae are believed to influence the taste perception and dietary preferences and hence, the caries experience in different individuals.

AIM

To determine the correlation between the number of fungiform papillae and the occurrence of dental caries in 18-21 years old age group.

MATERIALS AND METHODS



RESULTS

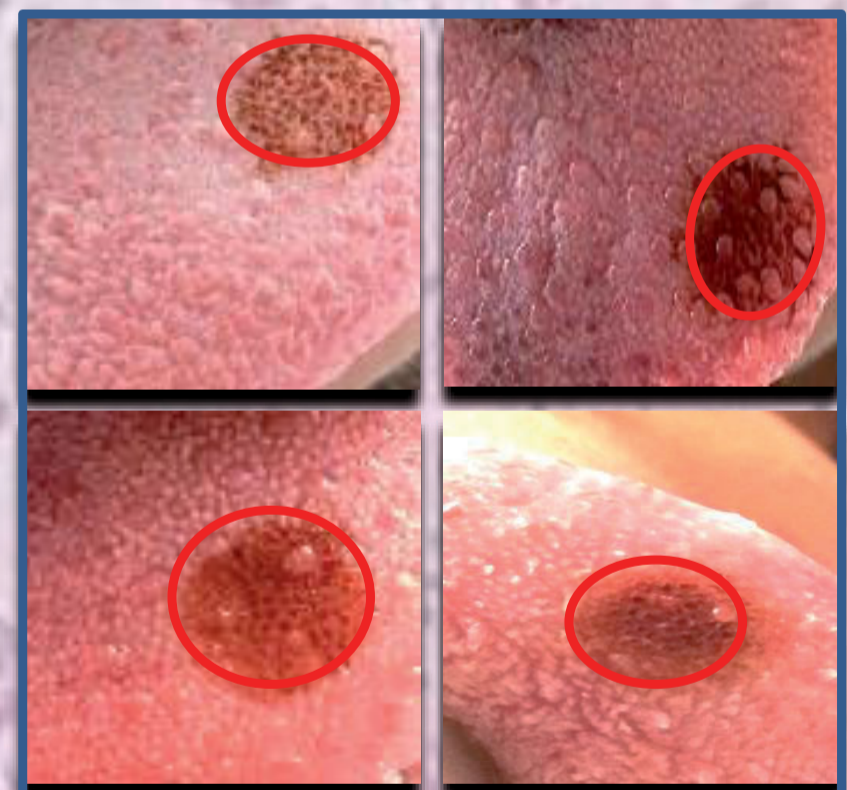
Factors	Mean	Standard deviation
Number of fungiform papillae	6.87	2.315
DMFT	2.21	2.315
Decayed teeth	1.57	2.035

Factor 1	Factor 2	r value	p value
Number of fungiform papillae	DMFT	-0.156	0.095
Number of fungiform papillae	Decayed teeth	-0.242**	0.009

** p<0.05 (statistically significant)

DISCUSSION

PRESENT STUDY	COMPARATIVE STUDY	INFERENCE
A higher prevalence of dental caries was observed among individuals having a lesser number of fungiform papillae	High numbers of fungiform papillae are commonly found in supertasters than non-tasters. An increase in the caries experience and S.mutans levels were found among the group of non-tasters as compared to tasters.	There is an inverse correlation between the number of fungiform papillae and dental caries.



Photographs of stained areas

CONCLUSION

•The DMFT score is higher in individuals having a lesser number of fungiform papillae. The taste buds on the fungiform papillae determine the taste threshold and dietary preferences, which in turn influence caries experience.

Limitation : Study sample included only students of a dental college, who may have better oral hygiene than the general population, although the mean DMFT of this age group (2.5) is close to that obtained in this study.

PUBLIC HEALTH SIGNIFICANCE

•A higher prevalence of dental caries is observed among individuals having a lesser number of fungiform papillae . Hence, the number of fungiform papillae could be used as an effective tool in caries risk assessment.

REFERENCES

•Verma P, Shetty V, Hegde A. Propylthiouracil (PROP)-A tool to determine taster status in relation to caries experience, streptococcus mutans levels and dietary preferences in children. Journal of Clinical Pediatric Dentistry. 2007 Jan 1;31(2):113-7.

Presented at 22nd IAPHD National Conference (3rd -5th Nov, 2017) Dhule, India.