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Comparison of oral health care practices among the tobacco chewers and nonchewers

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Abstract---Background: Tobacco is chewed, smoked, sucked, sniffed and is the one product which is detrimental to the population when it is used entirely as intended. The present study was conducted to compare the oral health care practices among the tobacco chewers and nonchewers. Materials & Methods: 80 subjects of both genders were divided into 2 groups. Group I comprised of tobacco chewer and group II non- chewer. A closed-ended questionnaire namely, the National Youth Tobacco Survey Questionnaire and the WHO Oral Health Questionnaire for Adults was recorded which consisted of demographic information, oral health care practices, and information regarding smokeless tobacco habit. Results: Out of 80 subjects, males were 65 and females were 15. Tooth brush material used was tooth brush in 5 and 32, finger in 15 and 6 and neem stick in 20 and 2. Tooth cleaning material was tooth paste in 12 and 35, tooth powder in 28 and 5, frequency of brushing was once in 11 and 10, twice in 4 and 27 and occasionally in 25 and 3. Frequency of snack consumption was sometimes in 17 and 33 and mostly in 23 and 7. Previous dental treatment was no treatment in 27 and 11 and visited the dentist seen in 13 and 29. Perceptions of state of teeth/ gums was very good in 6 and 23, good in 10 and 10 and average in 14 and 7 in group I and II respectively. The difference was significant ($P < 0.05$). Conclusion: Higher level of education was observed among the tobacco nonchewers compared to the tobacco chewers. We emphasize on the need to educate and promote awareness about harmful effects of tobacco among its users. There is also need to have proper tobacco cessation counseling.

Keywords---smoking, toothpaste, tobacco chewers.

Introduction

Tobacco is the single greatest cause of noncommunicable disease and is likely to produce a world pandemic.¹ Tobacco is chewed, smoked, sucked, sniffed and is

the one product which is detrimental to the population when it is used entirely as intended. In general, sun-or air-cured smokeless tobacco is used in an unprocessed, processed, or manufactured form. It can be used with lime, with areca nut or in a betel quid (pan).² Some of the tobacco forms available in India are Hogesoppu and Kaddipudi, Gundi (powdered tobacco with coriander seeds, other spices and aromatic, resinous oils), Zarda (tobacco, lime, spices) and Khaini (tobacco and lime) in North India, Mainpuri tobacco, Mawa, Tuibur or Hidakphu (tobacco water) and Gudakhu.³

Smokeless tobacco is known to cause malignancies of the mouth, lip, tongue, and pancreas. Users likewise might be in danger for cancer of the voice box, throat, colon, and bladder, since they swallow a portion of the poisons in the juice made by utilizing smokeless tobacco. Smokeless tobacco can trouble gum tissue, causing periodontal disease.⁴ Sugar is routinely added to update the sort of smokeless tobacco, growing the danger for tooth cavitation. Smokeless tobacco also routinely contains sand and coarseness, which can further harm the teeth. Periodontal illnesses are one of the fundamental wellsprings of tooth loss, particularly among all the more elderly individuals. Tobacco smoking is a champion among the most fundamental characteristic peril factors for periodontal sicknesses.⁵ The present study was conducted to compare the oral health care practices among the tobacco chewers and nonchewers.

Materials & Methods

The present study was conducted in between January 2021 to July 2021 among 80 subjects of both genders. The consent was obtained from all enrolled subjects. Data such as name, age, gender etc. was recorded. Subjects using tobacco products other than smokeless tobacco, subjects having alcohol habits, medically compromised patients, or those unwilling to give the full details of their habit were excluded from the study. Group I comprised of tobacco chewer and group II non- chewer. A closed-ended questionnaire namely, the National Youth Tobacco Survey Questionnaire and the WHO Oral Health Questionnaire for Adults was recorded which consisted of demographic information, oral health care practices, and information regarding smokeless tobacco habit. Tobacco cessation counselling was provided for the smokeless tobacco users. Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

Results

Table I Distribution of patients

Total- 80		
Gender	Males	Females
Number	65	15

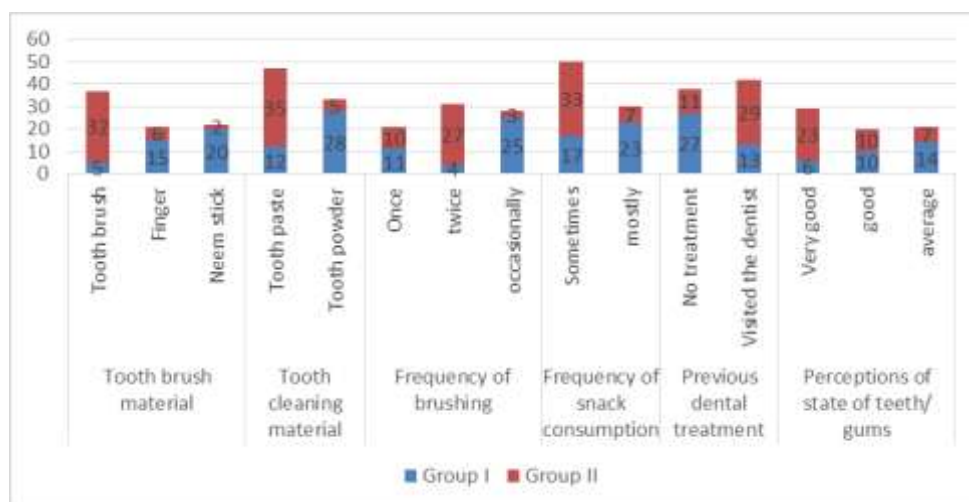
Table I shows that out of 80 subjects, males were 65 and females were 15.

Table II Assessment of Oral health care habits

Parameters	Variables	Group I	Group II	P value
Tooth brush material	Tooth brush	5	32	0.01
	Finger	15	6	
	Neem stick	20	2	
Tooth cleaning material	Tooth paste	12	35	0.02
	Tooth powder	28	5	
Frequency of brushing	Once	11	10	0.05
	twice	4	27	
	occasionally	25	3	
Frequency of snack consumption	Sometimes	17	33	0.01
	mostly	23	7	
Previous dental treatment	No treatment	27	11	0.05
	Visited the dentist	13	29	
Perceptions of state of teeth/ gums	Very good	6	23	0.03
	good	10	10	
	average	14	7	

Table II shows that tooth brush material used was toothbrush in 5 and 32, finger in 15 and 6 and neem stick in 20 and 2. Tooth cleaning material was toothpaste in 12 and 35, tooth powder in 28 and 5, frequency of brushing was once in 11 and 10, twice in 4 and 27 and occasionally in 25 and 3. Frequency of snack consumption was sometimes in 17 and 33 and mostly in 23 and 7. Previous dental treatment was no treatment in 27 and 11 and visited the dentist seen in 13 and 29. Perceptions of state of teeth/ gums was very good in 6 and 23, good in 10 and 10 and average in 14 and 7 in group I and II respectively. The difference was significant ($P < 0.05$).

Graph I Assessment of Oral health care habits



Discussion

In India, tobacco utilization has been viewed as a noteworthy contributor to the aggregate death rate, and in 1990, 1.5% of aggregate deaths were tobacco related.⁶ Tobacco utilization is evolving at the rate of 2–3% per annum. World Health Organization (WHO) appraisal evaluated that by 2020, tobacco-related demise may surpass 1.5 million yearly or 13% of death in India.⁷ India is a developing nation and tobacco smoking is turning into the well-known type of tobacco utilization in rural and urban populace.⁸ Out of 930 million worldwide tobacco buyers, 1.1 billion smokers live in developing nations, in which India alone has 182 million smokers.⁹ The present study was conducted to compare the oral health care practices among the tobacco chewers and nonchewers.

We found that out of 80 subjects, males were 65 and females were 15. Mahapatra et al¹⁰ compared the oral health care practices among the tobacco chewers and nonchewers and to record the tobacco chewing habit among the tobacco chewers. The study sample of 512 subjects (256 tobacco chewers and 256 nonchewers), who were age and sex matched, were then interviewed regarding their oral hygiene practices and tobacco chewing habit using a closed-ended questionnaire, derived from the National Youth Tobacco Survey Questionnaire, 2012 and the WHO Oral Health Questionnaire for Adults, 2013. All the study subjects had people at home who had the habit of chewing some or the other form of tobacco. Most (73.4%) of the tobacco chewers felt that tobacco chewing probably makes young people look cool or fit in their peer group. Furthermore, 72.2% never saw a warning label on a smokeless tobacco product and 95.3% never had family or friends talk to them about not using any type of tobacco product. However, 87.1% were willing to quit this habit if proper guidance was provided.

We observed that tooth brush material used was tooth brush in 5 and 32, finger in 15 and 6 and neem stick in 20 and 2. Tooth cleaning material was tooth paste in 12 and 35, tooth powder in 28 and 5, frequency of brushing was once in 11 and 10, twice in 4 and 27 and occasionally in 25 and 3. Frequency of snack consumption was sometimes in 17 and 33 and mostly in 23 and 7. Previous dental treatment was no treatment in 27 and 11 and visited the dentist seen in 13 and 29. Perceptions of state of teeth/ gums was very good in 6 and 23, good in 10 and 10 and average in 14 and 7 in group I and II respectively. Verma et al¹¹ assessed the effect of gutkha chewing on periodontal health and oral hygiene of patients attending the dental department in India. A cross-sectional investigation was directed among 200 patients going to dental camps. Among them, 100 were gutkha chewers and 100 were smokers. The oral hygiene status of selected patients was determined by using the Simplified Oral Hygiene Index. Various periodontal parameters like a gingival recession, clinical attachment loss, mobility, and furcation were used to evaluate the periodontal status. Among the 200 subjects, 102 were males and 78 were females. In 100 gutkha chewers, 67% were male and 33% were females. About 68% gutkha chewers showed poor oral hygiene as compared to nonchewers (41%). The values of all the periodontal parameters were significantly higher in gutkha smokers compared to nonchewers. Chang et al¹² stated that the areca nut containing arecoline restrain the development and connection of proteins and periodontal fibroblasts. This showed

that gutkha that contains betel nut may be another hazard factor in the pathogenesis of periodontal diseases.

Conclusion

Higher level of education was observed among the tobacco nonchewers compared to the tobacco chewers. We emphasize on the need to educate and promote awareness about harmful effects of tobacco among its users. There is also need to have proper tobacco cessation counseling.

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