



Practice of oral hygiene in rural Uttar Pradesh

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ABSTRACT**OBJECTIVE :** The study was conducted with an objective to assess the practice of oral hygiene in the rural areas between Lucknow and Kanpur.**MATERIAL AND METHOD :** Villages between Lucknow and Kanpur were randomly selected for the study. A self-administered questionnaire was used as a survey tool. Oral health check-up camps were organised within the village premises, audio-visual aids and pamphlets were used to spread awareness about the importance of maintaining good oral hygiene habits. The study was conducted in two phases, the data was compiled and analysed separately.**RESULTS :** A large number of participants used toothpaste as a dentifrice but brushed once a day. A number of participants used tobacco based pastes and charcoal powder to clean their teeth in phase 1, however this number dropped in phase 2, showing the impact of awareness campaigns.**CONCLUSION :** Oral hygiene habits and oral health awareness needs to be improved among the villager**KEYWORDS :** Oral hygiene, neem twig/datun, gul/ tobacco paste, coal powder, awareness.**INTRODUCTION**

India is a vast country with a diverse cultural and social practice. About 60-70% of the Indian population lives in rural areas [1]. Poor health awareness and inaccessibility to proper oral health education and treatment has led to high prevalence of oral diseases. Oral health is influenced by a number of factors, oral hygiene practices being one of them [1]. Oral health is considered an essential component of the general well-being of an individual. There are many variations in the practice of oral hygiene which exist in urban and rural areas [2, 3, 4]. There is a paucity of literature regarding oral hygiene practices in India [5]. A few oral hygiene practices include use of coal powder, brick powder and use of neem twigs (datun) [6]. In rural India there is a misconception regarding tobacco that it is good for teeth and relieves dental pain [7]. Tobacco in the form of pastes and toothpowders are available in India and are used as dentifrices by many [8].

This study was taken up in an attempt to find out the pattern of use of dentifrices in rural Uttar Pradesh so that adverse practices could be modulated.

MATERIAL AND METHOD

The study was conducted in randomly selected six villages around Lucknow and Kanpur. A structured self-administered questionnaire was used as a survey tool to assess the practice of oral hygiene by the villagers. In every village health check-up camps were organised at regular intervals. All necessary permissions were taken from the village heads. School teachers cooperated and allowed us an interactive session with the children thus the health education carried out in the camps was reinforced with children taking back the same message home. Audio-visual aids were used to educate participants about good oral hygiene practices. Pamphlets motivated participants to use toothbrushes, pastes and floss as a part of their bi-daily regime. The study was conducted in two phases. In the first phase the number of participants in the study was 1331. In the second phase the number of participants increased to 2555. Data was collected, compiled and analysed for both phases separately to assess the impact of health education as a part of the oral health check-up camps.

RESULTS**PHASE 1**

Number of participants in phase 1 was 1331. The frequency and percentage of various dentifrices used by participants were as follows

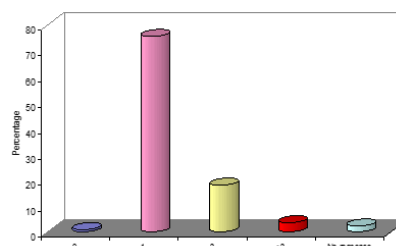
	FREQUENCY	PERCENTAGE
Toothpaste/toothpowder	1075	80.8
Datoon/neem twig	103	7.7
Coal powder	19	1.4
Gul/ tobacco paste/powder	98	7.4
No response	36	2.7

	FREQUENCY	PERCENTAGE
Do not clean/ irregular	45	3.4
Once a day	970	72.9
Twice a day	303	22.8
More than twice a day	13	1

Use of toothpaste/toothpowder was the most common practice, 72.9% participants brushed once daily. 7.4% participants used tobacco based toothpowders and pastes. 1% participants brushed more than twice a day.

PHASE 2

	FREQUENCY	PERCENTAGE
Do not use anything	25	1
Toothpaste/toothpowder	1976	77.3
Datoon/ neem twig	391	15.3
Coal powder	10	0.4
Gul/tobacco pate and powder	88	3.4
No response	65	2.5



A sizeable number of participants used a toothbrush and paste at least once; bi-daily brushing was practiced by more than 20% participants. Use of tobacco based powders and pastes were 3.4%. Use of coal powder was 0.4%.

On comparing the two phases, the number of participants increased from 1331 to 2555. The usage of tobacco based pastes and charcoal dentifrices dropped from 7.4% to 3.4% and 1.4% to 0.4% respectively. The number of participants who were irregular in keeping their oral cavity clean was 3.4% in phase 1 and 0.8% in phase 2. Thus the awareness campaigns were showing an outcome.

DISCUSSION

The first toothbrush with bristles came from China; the bristles were made from the tail of a horse while the handle was prepared from the bone of an ox [9]. Later the animal hair bristles were replaced by synthetic fibres and the handles were prepared from thermoplastic materials. Modern cleaning aids materials include nonabrasive toothpowders and toothpastes, toothbrushes, proxa brushes, dental floss, tongue cleaners, and mouthwashes. The current study focuses on the practice of oral hygiene in rural Uttar Pradesh.

Our study revealed that a large number of participants used toothpaste as a dentifrice. Similar findings were noted by Oberoi et al., Kapoor et al. who observed use of this material to be at 84.4 and 90.3%, respectively [10, 11]. Similar findings were observed by Jain et al [6] Sharda et al [12].

In our study 7.7% participants used neem twigs/datum to clean their teeth in phase 1 while 15.3% participants used the same in phase 2. Oberoi et al. reported 1.2% patients using datum whereas Kapoor et al. reported 4.4% patients using datum. [10, 11] Kapoor et al. also observed that the use of datum was more common in rural areas compared to urban.

We observed 1.4% of participants in phase 1 and 0.4% participants in phase 2 used coal powder to clean teeth. This finding can be explained by the study conducted by Sogi et al, which showed a relationship between oral health with socioeconomic status [13].

We observed that 7.4% and 3.4% of participants used tobacco based pastes/powders as dentifrices. Various tobacco products are popular as a dentifrice in different parts of India [14, 15]. In a survey, women were found to be addictive to tobacco paste than males [16].

Frequency of brushing was once daily by maximum participants in our study, only 22.8% participants in phase 1 brushed twice daily. Dilip et al in a study among police recruits observed that 58% of the study population brushed twice daily [17]. A study from Kuwait reported 62% cases brushing twice daily [18]. 50% Chinese middle-aged people and 75% geriatrics brushed twice daily in a study conducted by Zhu et al [19]. Another study was conducted amongst Chinese urban adolescents who reported 67% of the population brushed twice daily [20].

CONCLUSION

The current survey suggested that oral hygiene habits and oral health awareness among the rural population needs improvement. This can be achieved with the help of a dedicated team of health care personnel. Awareness programmes can be planned both at community / population levels where the villagers are educated and motivated about the correct method of oral hygiene maintenance. Oral health care facilities can be made accessible to the villagers with the help of oral health care booths within the village premises and mobile dental vans.

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