Awareness of Oral Hygiene and Esthetic Vigilance among Youngsters: A Web-based Study

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ABSTRACT

Aim and objective: To assess awareness and vigilance of oral health and esthetics among the young population.

Materials and methods: A web-based, self-constructed, multiple-choice questionnaire consisting of 19 questions prepared on Google forms application was used for the survey and distributed using Gmail, WhatsApp among 246 youngsters with an age group ranging from 15 to 30 years selected adopting a convenient sampling method.

Results: The result of the study shows awareness of oral hygiene and esthetics were moderate among the youngsters. Ninety-eight percent think oral cleanliness is required and 58.9% brush only once daily. 73.6% brush only to maintain cleanliness. 90.7% were concerned about the esthetics and 81.7% would like to resolve the problem to enhance esthetics and 35.2% found the treatment expensive. Only 50% of them were aware of a specialist called a periodontist and 54% visit a general dentist and 31.7% like to visit a dentist only in times of any oral problem.

Conclusion: The majority of the subjects were unaware of a specialist named a periodontist and would visit a general dentist in times of need. Thus, there is a definite need to focus on spreading awareness among youngsters regarding oral hygiene maintenance and esthetic corrections in compromised conditions.

Keywords: Brushing, Esthetics, Oral hygiene, Youngsters.

CODS Journal of Dentistry (2020): 10.5005/jp-journals-10063-0061

INTRODUCTION

In modern society, a pleasing esthetic appearance has become a high priority along with oral health. The facial profile and the oral structural alignment are one of the first features people look at; a pleasant smile is a key factor for attraction. But people's perception of oral health and esthetics has been seen to vary from one individual to another as every other individual has a different point of view with the prospects of health and appearance. Some people comply better with oral health care regimens and some with esthetics. Lack of awareness of dental procedures are reasons for non-adherence to oral care practices among youngsters.¹ Hence, proper oral care knowledge is a must to avoid oral complaints in the future. A web-based study has its advantages of easy data collection, recording, and maintenance of data for statistical analysis, being cost-effective and in less time. So, the present study was conducted to assess the oral hygiene and esthetic awareness among youngsters and to increase knowledge on dental procedures.

MATERIALS AND METHODS

Sample Size and Sampling Procedure

A web-based, self-constructed, multiple-choice questionnaire consisting of 19 questions along with one pictorial question was prepared on the Google forms app and was circulated among 246 youngsters from urban and rural areas of all over India selected by adopting convenient sampling method of both genders with an age group ranging from 15 to 30 years. The questionnaire was prepared in English and was distributed through Gmail, WhatsApp among youngsters pursuing education and working in their respective professions other than a dental specialty.

The elicited information was on sociodemographic characteristics, oral hygiene and esthetic knowledge, and knowledge about dental specialties. The reason for undertaking

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How to cite this article: Jilkapally SP, Prasanna JS. Awareness of Oral Hygiene and Esthetic Vigilance among Youngsters: A Web-based Study. CODS J Dent 2020;12(2):35–40.

Source of support: Nil

Conflict of interest: None

young individuals is their vast exposure to social media and interest in one's appearance and also to increase the awareness of different esthetic dental procedures and improve oral health status.

RESULTS

Sociodemographic Characteristics of Study Participants

Among the 246 participants, 134 (54.4%) were female and 112 (45.5%) were male (Table 1).

Table 1: Sociodemographic characteristics of study participants (n = 246)

Variable	Number	Frequency (%)
Age	15–20	19 (7.7)
	21–25	139 (56.5)
	26–30	88 (35.7)
Sex	Female	134 (54.4)
	Male	112 (45.5)

Responses and Awareness of Oral Cleanliness

Two hundred and forty-one (98%) thought oral cleanliness is required and 145 (58.9%) of them brush only once a day (Fig. 1). One hundred and fifty (61%) take only 1–5 minutes to brush (Fig. 2). One hundred and ninety-eight (80.8%) thought that the time taken for cleaning/brushing matters to maintain oral health (Fig. 3). Two hundred and eleven (85.8%) thought cleaning the tongue helps in oral health maintenance. One hundred and ninety-one (77.6%) said they clean the tongue every day after brushing. One hundred and eighty-one (73.6%) brush every day to maintain cleanliness, whereas 32 (13%) considered it a daily routine habit (Fig. 4). One hundred and seventy (69.1%) knew about rinsing the mouth every time after brushing but only 72 (29.3%) used mouthwash, whereas 174 (70.7%) did not use mouthwash after brushing. One hundred and forty-two (57.7%) rinse the mouth after intake of any type of meal (Table 2).

The Response of Participants on Esthetic Awareness and Dental Treatment Considerations

Two hundred and twenty-three (90.7%) were concerned about the esthetics and 59 (24%) and 54 (22%) thought correcting irregularly arranged teeth and black gums, respectively, can enhance esthetics

(Figs 5 and 6). One hundred and eighty-six (75.6%) knew that the mentioned dental problems can be corrected, 201 (81.7%) would like to correct the problem to enhance esthetics, and 88 (35.2%) found the treatment expensive. Only 123 (50%) of them were aware of a specialist called a periodontist and 128 (54%) visit a general dentist and 78 (31.7%) visit a dentist only in times of dental problem (Fig. 7 and Table 3).

DISCUSSION

“Oral Health for a Healthy Life” was the theme declared by the World Health Organization (WHO) on World Health Day 1994.² Complete oral health with disease-free teeth and supporting tissues are considered important. A healthy set of teeth and gingiva also form an important part of what is now known as facial esthetics.

It is a known fact in India that oral hygiene is considered less important and has mostly remained ignored, unimportant, and unrealized. Most of the systemic diseases show their first signs and symptoms through the oral cavity and they remain undiagnosed or untreated because of this missing awareness.

Gingival esthetics is an important component of an attractive smile. Esthetic restorations surrounded by unesthetic gingival tissue can harm a smile and one's confidence. Gingival tissues are

Fig. 1: Percentage of study participants thinking oral cleanliness is required

Fig. 2: Participants on time required to clean their oral cavity (n = 246)

Fig. 3: Percentage of participants thinking the time taken for brushing matters to maintain oral health (n = 246)

Fig. 4: Percentage of participants thinking the reason to brush (n = 246)

Table 2: Participants response and awareness of oral cleanliness

Question	Category	Frequency (%)
Do you think oral cleanliness is required?	Yes	241 (98)
	No	5 (2)
How often do you clean your oral cavity?	Once-daily	145 (58.9)
	Twice daily	68 (27.6)
	Whenever you feel like you want to	33 (13.4)
How much time do you take to clean your teeth?	1–5 minutes	150 (61)
	5–10 minutes	59 (24)
	>10 minutes	37 (15)
Do you think the time you take for brushing matters to maintain oral health?	Yes	198 (80.8)
	No	47 (19.2)
Do you think cleaning the tongue helps in oral health maintenance?	Yes	211 (85.8)
	No	35 (14.2)
Do you clean your tongue every day after brushing?	Yes	191 (77.6)
	No	55 (22.4)
Why should we brush?	To maintain cleanliness	181 (73.6)
	Pleasing appearance	8 (3.3)
	Pleasant feel	25 (10.2)
	As a daily routine habit	32 (13)
Do you know anything about rinsing your mouth?	Yes	170 (69.1)
	No	76 (30.9)
Do you use mouthwash after brushing?	Yes	72 (29.3)
	No	174 (70.7)
Do you rinse your mouth after intake of any type of food?	Yes	142 (57.7)
	No	104 (42.3)
What is your priority of interest in cleaning?	Teeth	74 (30.1)
	Gums	3 (1.2)
	Tongue	5 (2)
	All the above	164 (66.7)

Fig. 5: Respondent's reason to enhance the appearance (n = 246)

the most pleasing with little exposure to keratinized and mucosal tissue. The excessively exposed gingiva can distract from the overall appearance, regardless of the good appearance of other elements. Youngsters who are considered as the future of India are studied to help them in attaining oral hygiene and care about esthetics by

creating awareness but their busy lifestyle and frequent migrations for study or professional purposes would be a limitation for them to attain the same.

Circulating through Gmail and WhatsApp is handy to all as smartphones are ruling the world and available to everyone, this approach can reach a wide number of people. A limitation of this approach is the easy forwarding nature of people which makes the questionnaire accessible to any individual and replies from the unwanted members of the study.

The commonly reported frequency for oral hygiene practices is 1–2 times a day. In this study, only 27.6% reported to brush twice daily which is in accordance with the study done by Kapoor et al., and Jain et al., who reported low proportions of 25 and 23% of their studied population,^{1,3} contradicting to this were the studies were done by Dilip among Police recruits,⁴ Jiang et al. among the Chinese urban adolescents⁵, Al-Shammari et al. among the Kuwaiti adults,⁶ and Zhu et al. among the middle-aged and the elderly Chinese adults in urban areas⁷ who reported 58, 67, 62, 50, and 75% proportions, respectively.

The present study showed that 77.6% of the studied population clean their tongue. 57.7% rinse the mouth after intake of any type of meal, only 29.3% of the subjects use mouthwash. Whereas in a study by Kapse et al.,⁸ 84% of individuals had developed the proper habit of cleaning the tongue and 71% rinse their mouth after the

Figs 6A to E: Which among the following corrected, can enhance the appearance (Pictorial question): (A) Irregularly arranged teeth; (B) Black gums; (C) Excess gum exposed while smiling; (D) Black space between teeth; (E) Receded gums or exposed teeth

Fig. 7: Percentage of participant's reasons to visit the dentist (n = 246)

meal in their daily routine, 25% of participants use mouthwash, and 67% did not use mouthwash even 7% individuals not even known about mouthwash. This shows a lack of awareness.

Our study showed that 31.7% of the subjects visit a dentist in times of need, among other studies Al-Beiruti,⁹ in 1997, reported 69.5% of the participants to visit a dentist only when they have pain. In a study done by Ganesh et al.¹⁰ on oral health awareness and oral hygiene status of 12- and 15-year-old children in Chennai 40.7% of the children had never visited a dentist. Varenne et al.¹¹ in 2006 in Africa in their study, 93% of the children and 90% of the children in a study by Leung and Chu in China,¹² had never visited a dentist.

As the participants can be non-dental professionals, a pictorial question was included that gave them a clear vision of the problems, pictures that included were irregularly arranged teeth, black gums, excess gum exposed while smiling, black spaces between teeth, receded or exposed gums (Figs 5 and 6).

Only 90.7% were concerned about esthetics in the present study and 24% thought correcting irregularly arranged teeth can enhance esthetics which is in accordance with the study done by Faizee et al.,¹³ reported that >70% of the participants showed their interest in self-image, 39.9% of the total study population was unhappy with the arrangement of their teeth.

The level of marginal gingiva of the maxillary anterior teeth also influences the esthetic appearance of a smile, which should be located along a horizontal line extending from cuspid to cuspid. In the current study, 17.1% thought that correcting the excess gum exposed can improve esthetics. In the study done by Shetty et al., there was no awareness of the gingival recession.¹⁴

The survey of adults showed that those who had check-ups had almost half as many teeth missing as those who visited the dentist only in times of problem.¹⁵ In the present study, 31.7% visit dentist only in times of dental problem.

Limitations

The study could be more effective if done offline.

CONCLUSION

Awareness of oral hygiene and esthetics was moderate among youngsters. Esthetic concern was significant among most of them. A significant number of participants knew oral problems can be corrected but were hesitant to correct them concerning the expenses of the treatment. Most of them were unaware of a specialist named a periodontist and would visit a general dentist in times of need. Thus, there is a definite need to focus on spreading awareness among youngsters regarding oral hygiene maintenance and esthetic corrections in compromised conditions. We, as dentists, will have to keep reinforcing the importance of oral hygiene and esthetics awareness among the youngsters. This study helps in enhancing the knowledge and attitude of the young population on oral hygiene and esthetics.

Table 3: Response of participants on esthetic awareness and dental treatment considerations ($n = 246$)

Question	Category	Frequency (%)
Does appearance matter to you?	Yes	223 (90.7)
	No	23 (9.3)
What among the following corrected, can enhance the appearance in your opinion? (Pictorial question, Fig. 5)	Irregularly arranged teeth	59 (24)
	Black gums	54 (22)
	Excess gum exposed while smiling	42 (17.1)
	Just maintaining cleanliness can enhance	49 (19.9)
	Black spaces between teeth	25 (10.2)
	Receded or exposed gums	17 (6.9)
Are you aware that the above-mentioned dental problems can be corrected?	Yes	186 (75.6)
	No	60 (24.4)
If you find any of the above-mentioned problems, would you like to correct them?	Yes	201 (81.7)
	No	45 (8.3)
If yes, why?	Helps in better social interaction	73 (29.8)
	To enhance the esthetic appearance	116 (46.9)
	Other reason	57 (23.3)
If no, why?	Fear of treatment	57 (23.3)
	Wants to retain a natural appearance	36 (14.8)
	Expensive	88 (35.2)
	Other reason	65 (26.6)
How frequently one should visit a dentist?	Every 6 months	90 (36.6)
	6 months–a year	45 (18.3)
	>a year	21 (8.5)
	In times of any issue	78 (31.7)
	Not needed	12 (4.9)
In times of any oral problem, you visit	A specialist concerned with the issue	87 (35.4)
	A general dentist	134 (54.5)
	Any medical practitioner	25 (10.2)
Are you aware of a specialty called periodontics in dentistry?	Yes	123 (50)
	No	123 (50)
Are you aware that a periodontist deals with all the gum-related problems?	Yes	128 (52)
	No	118 (48)

ACKNOWLEDGMENTS

The authors acknowledge the support from the volunteers who contributed to the study.

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