

Evaluation of Oral Hygiene Awareness, Knowledge and Practice among Patients Visiting the Dashmesh Institute of Research and Dental Sciences, Faridkot - A Cross - Sectional Study

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Abstract

Oral hygiene is interconnected with various facets of our existence, yet it is frequently overlooked. A majority of individuals have a tendency to disregard their impending dental issues, which subsequently exacerbate or have an impact on their overall well-being. The failure of individuals to recognize this fact has resulted in countless individuals suffering from excruciating toothaches and a substandard quality of life, culminating in the loss of most of their teeth. The current investigation highlights the inadequate oral health knowledge among even the educated individuals. Furthermore, most of the patients were not cognizant of the impact of oral health on their overall health.

Introduction:

Oral hygiene is interconnected with various facets of our existence, yet it is frequently overlooked. The condition of our oral cavity serves as an indicator of our overall physical well-being.¹ Although it is often undervalued, the significance of routine dental care cannot be overemphasized. Irrespective of age, oral hygiene is a crucial element that must not be neglected, as it plays a pivotal role in maintaining overall health.² Providing patients with adequate information and positive reinforcement can lead to better adherence to oral health care regimens. One of the primary reasons for non-

compliance with oral hygiene practices is a dearth of knowledge.³

A majority of individuals have a tendency to disregard their impending dental issues, which subsequently exacerbate or have an impact on their overall well-being. The failure of individuals to recognize this fact has resulted in countless individuals suffering from excruciating toothaches and a substandard quality of life, culminating in the loss of most of their teeth.⁴ Having adequate knowledge about oral hygiene is deemed as a crucial requirement for engaging in health-related practices.⁵

Raising awareness and promoting oral health is a financially viable approach

towards alleviating the impact of oral ailments and preserving both oral health and overall quality of life.⁶

The American Dental Association (ADA) recommends the modified Bass technique as the most effective way to brush teeth, which involves holding the brush at a 45-degree angle to the tooth, against the gums, and using short back-and-forth strokes while sweeping across 2-3 teeth at a time. Using additional oral hygiene aids, such as an antimicrobial mouthwash and flossing, can further reduce plaque build-up that can lead to gingivitis and gum disease. Despite numerous studies conducted to evaluate people's knowledge and practices related to oral health, there remains a lack of education on this subject, particularly among the rural population, which comprises over 70% of India's population.⁷ Furthermore, even the people living in cities in spite of having easy access to dental care, fall prey to dental disease due to their negligence in dietary habits and unhealthy lifestyles⁸ therefore, the present study was conducted to assess the oral hygiene Awareness and practice among patients visiting the OPD of Dasmesh institute of research and dental sciences, Faridkot.

Materials And Methods:

Ethical clearance: The study will be reviewed by Ethical Review Committee of Dasmesh Institute of Research and Dental Sciences, Faridkot and clearance will be obtained.

Sample description / methodology:

A cross sectional study using a 20 item structured was conducted to assess oral hygiene knowledge, awareness and attitude or sample of patients (n=500) seeking dental care .A convenient

sampling technique was adopted in present study. The patients who were visiting the dental college during the study period(1 month) and agree to participate were included in studies , a total of 500 patients participated in current studies . The response rate was 90% and a pilot survey was conducting on 10% of study population to assess the feasibility of study.

Questionare: The evaluation of oral hygiene Awareness, Knowledge and practice among patients visiting the OPD of Dasmesh institute of research and dental sciences, Faridkot. A safe administered structured close ended questionnaire including 20 MCQ was given to them . The results were analysed using percentage. The patients were selected both from urban and rural and both educate and illiterate group.

All patients are assisted by one of the interns so that even illiterate patients are able to fill form with ease .

The questionnaire consists of all the sociodemographic characteristics study respondents includes – Name , Age, Gender,, Residential area, Education , source of oral health information.

This questionnaire was further categorised to evaluate knowledge, practice and attitude related to oral hygiene.

Sociodemographic characteristics of study respondents

- 1.Name:
- 2.Age:
- 3.Gender:
- 4.Residential area :
- 5.Education:
- 6.Source of oral health information:
 - o Newspaper and magazine
 - o Family and Friends
 - o T.V and Radio/ Internet

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Awareness of respondents towards oral hygiene

1. Do dental problems get cured themselves?

- Yes
- No

2. Do you think regular visit to dentist is necessary?

- Yes
- No

3. How often do you visit a dentist?

- Only in problem
- Once in 3 months
- Once in 6 months
- Between 1-2 years

4. Do you think professional cleaning weakens your teeth?

- Yes
- No

5. Do you think dentist care about treatment or prevention?

- Yes
- No

6. Do you know oral health is related to systemic health?

- Yes
- No

Knowledge and practice of respondents about oral hygiene

1. Do you clean your teeth?

- Yes
- No

2. How do you clean your teeth?

Toothbrush and toothpaste

- Toothbrush and powder
- Others (Datun, Fingers, charcoal powder)

3. How often do you brush your teeth ?

- Once
- Twice
- More than Twice
- Sometimes

4. Time devoted towards tooth cleaning/ tooth brushing?

- 2 min.
- 5 min.
- 10 min.

5. Type of tooth brushing method do you employ?

- Vertical
- Horizontal
- Combined

6. Have you ever noticed bleeding from gums?

- Yes
- No

7. Which secondary methods of plaque control do you use?

- Dental floss
- Interdental brushes
- Toothpicks
- None

8. Do you smoke/ drink?

- Yes
- No

9. Do you know ill effect of tobacco on teeth ?

- Yes
- No

10. Frequency of consumption of sugary food ?

- 2 times
- 4 times
- 5 times
- Many times in between meals

11. Do you know role of diet in dental decay ?

- Yes
- No

12. Do you rinse mouth after meals?

- Yes
- No

13. Have you ever notice smell from your mouth?

- Yes
- No

14. Do you use mouthwash?

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- Yes
- No.

Data collection:

The questionnaire were handed to the patients while they were sitted in the waiting area of Dasmesh institute of research and dental sciences Faridkot. At all times one of the intern was present with respondent while questionnaire being filled to insure that concerned respondent didn't discuss the questions and answer with any other patient sitting in the waiting area and also make sure that the concerned respondent fully understood the questions as well as probable answer completely after the distribution of questionnaire 15 minutes were allotted for completing the questionnaire and results were subjected for statistical analysis.

Statistical analysis:

The data will be complied systematically and statistical analysis will be carried out with SPSS. Statistical software in term of percentage association between discrete variables were tested by Chi-square test .The statistical significance level was fixed at $P \leq 0.05$.

Results:

In the present study, questionare was distributed to 200 patients those who are coming to the OPD of dashmesh institute of research and dental sciences, faridkot. Of the 200 patients , 56% were female and 44% were male . Distribution of patients according to age and gender is depicted in [TABLE 1](#) . The number of subjects in 61-70 group was maximum being. In view of their educational background, - 45% were literate and the remaining were illiterate.

Gender	Less than 20	21-30	31-40	41-50	More than 60
Male %	2-3%	35-38%	28-30%	22-25%	42-43%
Female %	3-4%	22-28%	38-40%	25-26%	10-12%

- Almost 55% of patients agree that dental problems not cured by themselves and there is a need to visit to a doctor for dental problems. But 45% patients said

that dental problems are cured by themselves and there is no need to go to dentist

- **BRUSHING**

On evaluating the dental awareness, it was shown that oral hygiene aids and frequency of cleaning teeth shown significant difference among different group of patients. Most of the patients preferred toothbrush with toothpaste as compared to other aids. It is reported that 66% of patients used toothbrush and toothpaste as a method to clean their teeth

and 23% of patients used datun and 9% of patients used charcoal Powder as a method to clean their teeth. And rest of the 2% patients doesn't brush their teeth. ([TABLE -2](#)) Frequency of tooth brushing in 32% patients is twice a day and remaining 68% patients brush their teeth once a day([FIGURE-1](#)) .Almost 84% of patients devot 2-3 minutes on brushing their teeth with combined method. Only 16% patients

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devotes 5 minutes on brushing their teeth with horizontal method.

Table -2

Method of cleaning	Percentage %
Toothbrush with toothpaste	66%
Datun	23%
Charcoal powder with finger	9%
None	2%



Figure - 1

- **INTERDENTAL AIDS**

Around 2-3 % of patients uses dental floss, 8-9% toothpicks and 3-4% interdental brushes



.Rest of patients did not use any interdental aids . (FIGURE -2)

Figure 2

- **TONGUE CLEANING AND BAD BREATH**

Tongue cleaning is also important factor in oral hygiene but only few patients know

this. Among all only 37%patients clean their tongue.

23% of patients rinses their oral cavity after meals. But Majority of patients felt smell from their oral cavity and 10-12% patients used mouthwash as a solution for bad breath prescribed by dentist.



Figure -3

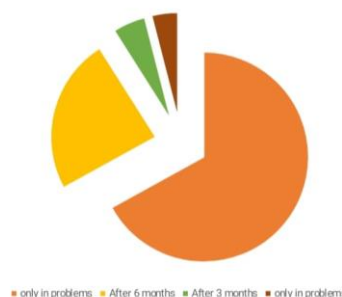
- **KNOWLEDGE AND AWARENESS REGARDING ORAL HEALTH AND IT'S EFFECT ON SYSTEMIC HEALTH**

Most of the patients did not have an idea about the relationship between the oral health and systemic health .Only 8-10% people know about this. (FIGURE -4)



It is surprising that 67% of patients visit the dentist only in problems but 24% of patients visit to dentist after 6 months for their routine checkup and 5% patients to visit dentist after 3 months for routine

checkups and out of all 4% of patients visit the dentist between 1-2 years . This data helps to analyse the awareness of population about their dental health. (FIGURE-5)



- **BLEEDING GUMS AND SCALING**

Out of all the participants, 38% have bleeding gums which signifies their awareness and practices about dental health and also put a light on various taboos like professional cleaning weakens the teeth.

- **RELATIONSHIP BETWEEN THE SAUGARY CONTENT AND DENTAL DECAY**

28% of patients consume very less sugary foods as they know about relation between diet and dental decay.

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Discussion:

Oral hygiene is a prevalent yet neglected social issue that lacks awareness among the majority of people, who are oblivious to the correlation between oral hygiene and systemic diseases. Given that many diseases exhibit symptoms in the oral cavity, there has been a notable shift towards disease prevention in the past two decades, rather than solely relying on treatment. The proper and consistent practice of preventive dental care can preserve healthy teeth for a lifetime. Therefore, the promotion of preventive oral health knowledge, behavior, and practice is crucial in maintaining optimal oral health. This study aimed to assess the population's level of preventive oral health knowledge, behavior, and practice. While brushing remains a popular oral hygiene practice, only 32% of the subjects in this study reported brushing their teeth twice a day, which is substantially lower than the 58% reported by Dilip's study on police recruits.⁹

67% of the Chinese adolescents in a study by Jiang et al¹⁰ 62% of kunwaiti adults in a study by Alshammari et al¹¹ and 50% of middle aged and 75% of elderly Chinese adults in urban areas in a study by Zhu et al.¹²

Only 10% of the subjects use soft brush, which is less than that observed among zhu et al.¹³

Thirty percent change their tooth brush once in 3 month, and surprisingly 60% change their brush only when it is useless. Around 30% of the subjects replace their toothbrush after three months, and alarmingly, 60% of them only change their brush when it becomes ineffective. Furthermore, a considerable number of individuals do not utilize dental floss or

other adjuncts for oral hygiene maintenance, which is consistent with a research conducted by Hanaa M. Jamjoom in Saudi Arabia in 2001.¹⁴ On the contrary, Hamilton and Couby discovered that a considerable proportion (44%) of the participants in their investigation in Northeastern Ontario made use of dental floss.¹⁵

One possible reason for the disparity in the use of dental floss between the two studies may be the differences in health education programs and resource allocation in the respective countries. This highlights the urgent need for promoting and educating the public about the benefits of using dental floss as an effective preventive tool for oral health care.

It was found that only 37% of the participants in the study reported cleaning their tongue, either with a tongue cleaner or toothbrush. Additionally, a mere 10-12% of the subjects reported using a mouthwash, and interestingly, it was primarily used to address bad breath. Surprisingly, 80% of the participants reported having halitosis. This finding contrasts with that of an epidemiological survey conducted in Japan, where only 24% of the participants complained of bad breath.¹⁶

44% of total subjects reported bleeding gums. This study is in agreement with studies of Gilbert et al¹⁷ and buhlin et al¹⁸ who showed that most of the patients did not notice bleeding from gums.

Our study showed that 67% of the subjects visited a dentist when they were in pain which is similar to the study done by Nabil Al-Beirut, in 1997, where 69.5% of participants reported visiting a dentist only when they have.¹⁹

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Unsurprisingly, standards of oral health is very low in India. because people are not aware about their oral hygiene and awareness due to poor socioeconomic condition. In addition many people who didn't even seen a dentist.

Missing awareness about dental checkup is also major problem. As, a dentist it is our responsibility to educate and motivate people to visit a dentist.

Conclusions:

The current investigation highlights the inadequate oral health knowledge among even the educated individuals. Furthermore, most of the patients were not cognizant of the impact of oral health on their overall health. Therefore, it is imperative to enhance awareness and impart knowledge about proper dental care and preventive measures for dental diseases through outreach programs by dentists and relevant public health awareness initiatives, in order to create a healthy community.

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