

Research Article

Practice and problems regarding oral hygiene: study among female medical undergraduate students of tertiary care hospital, Pune, India

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ABSTRACT

Background: As a health provider to community, a doctor should himself be aware of his oral health and undergraduate medical students who are future health professionals should also be well aware of their dental hygiene. Hence with an aim to assess the practice and problems about dental hygiene amongst female medical undergraduate students, this study was planned. Objective of the study was to assess the practices and problems regarding oral hygiene among female undergraduate medical students and efforts taken by them to solve these problems.

Method: A cross-sectional study was undertaken among female undergraduate medical students residing in a hostel of a medical college.

Results: 56.7% girls were using soft tooth brush, 69.3% students change their tooth brush every 6 monthly and 63.3% of them were brushing only once in a day. 79.3% were rinsing teeth after snack or meal. The percentage of students who were using mouth wash and tongue cleaner was 27.3% and 52% respectively. Bad breath was faced by only 9.33% of students, 39.33% were having cavities and 49.33% were having problem of plaque. 25.3% had never visited dentist. Scaling was performed by only 24.7% students and among them only 1.33% did it 6 monthly. It was observed that students using mouth wash 22.2% had significantly less problem of bad breath as compared to students who were not using 6.7%. Significantly larger numbers of students, with problem of cavities were observed to use mouth wash 60% and floss 68% as compared to those who did not have this complaint.

Conclusion: The study highlights the fact that preventive behaviour among medical students increased after they experienced some or the other oral health problem for which they were advised to follow these preventive practices so that the severity and extent of the disease does not progress. Further research is required on a larger scale so that the ways to increase the promotive and preventive oral health practices can be identified (e.g. behaviour change communication) to prevent the occurrence of oral health problems.

Keywords: Oral, Dental, Undergraduate, Female

INTRODUCTION

Oral health is very important aspect as it's a mirror of overall general well-being. If oral hygiene is not properly maintained it may lead to lot of diseases.¹

Dental carries and periodontal problems are due to poor oral hygiene practices.^{2,4} Oral cavity is a well-known nidus of infection. Any imbalance in the normal oral flora

may influence various systemic diseases.⁵ Plaque has been implicated as the main etiological factors for most gingival, periodontal diseases and caries.

It is a reservoir for micro-organisms and thus effective plaque control is important. Hence since historical times, the focus has been on the prevention of these diseases. Also, it is important to remember that the effectiveness of plaque control by self-care depends on awareness,

motivation, knowledge, oral hygiene instruction and manual dexterity and not only on the oral hygiene aids. For prevention of oral diseases, community must be made aware, educated, motivated and proper oral hygiene instruction must be given.

As a health provider to community, a doctor should himself be aware of his oral health and undergraduate medical students who are future health professionals should also be well aware of their dental hygiene. Hence with an aim to assess the practice and problems about dental hygiene amongst female medical undergraduate students, this study was planned.

Objectives of the study were to assess the practice about dental hygiene, to assess their problems regarding oral health and to assess their efforts taken to solve those problems.

METHODS

A cross sectional study was carried out to assess awareness regarding oral hygiene among female medical graduates.

A simple random sampling was done. Convenient sample size of 150 medical students was decided. Data was collected using a structured questionnaire. Ethical clearance was obtained from institutional review board. The duration of the study spanned over a period of two months from August 2015 to September 2015.

A specially designed questionnaire consisting of 22 close ended questions was used to assess the awareness and their own practice for oral health. The questionnaire was distributed by the investigator. Informed consent was taken prior to interview.

It was also mentioned that responses would remain confidential. The filled questionnaires were immediately collected after answering and data was entered in MS-excel and analyzed using test of significance.

RESULTS

Recent study was conducted in the girl’s hostel of a medical college in Pune. A total of 150 girls were interviewed. Table 1 shows the practice of students regarding oral hygiene.

Most of the girls 56.7% were using soft tooth brush and nearly half 50.7% select it on the basis of advertisements. It was observed that 69.3% students change their tooth brush every 6 monthly and more than half 63.3% of them were brushing only once in a day. There were 64% of the students who were using fluoridated tooth paste while 79.3% were rinsing teeth after snack or meal. The percentage of students who were using mouth wash and tongue cleaner was 27.3% and 52% respectively.

Table 2 shows the problems faced by students regarding problems of oral hygiene. Bad breath was faced by only 9.33% of students, 39.33% were having cavities and 49.33% were having problem of plaque.

Table 3 shows efforts taken by students to maintain their oral hygiene, it was noted that 25.3% had never visited dentist. Scaling was performed by only 24.7% students and among them only 1.33% did it 6 monthly.

Table 1: Practice of students regarding oral hygiene.

| Attributes | Frequency | % |
|---|-----------|------|
| Type of tooth brush use | | |
| Soft | 85 | 56.7 |
| Medium | 54 | 36 |
| Hard | 11 | 7.3 |
| Frequency of change of tooth brush | | |
| 3 monthly | 32 | 21.3 |
| 6 monthly | 104 | 69.3 |
| Yearly | 14 | 9.3 |
| How many times do you brush daily | | |
| Not even once | 2 | 1.3 |
| Once daily | 95 | 63.3 |
| Twice daily | 52 | 34.7 |
| Thrice daily | 1 | 0.7 |
| Kind of tooth paste use | | |
| Fluoridated | 96 | 64.0 |
| No fluoridated | 15 | 10.0 |
| Don't know | 39 | 26.0 |
| Rinsing after meals or snack | | |
| Yes | 119 | 79.3 |
| No | 31 | 20.7 |
| Use of mouthwash | | |
| Yes | 41 | 27.3 |
| No | 109 | 72.7 |
| Use of tongue cleaner | | |
| Yes | 78 | 52.0 |
| No | 72 | 48.0 |

Table 2: Problems related to bad oral hygiene.

| Attributes | Frequency | % |
|------------------------------|-----------|-------|
| Problem of bad breath | | |
| Yes | 14 | 9.33 |
| No | 136 | 90.66 |
| Problem of cavities | | |
| Yes | 59 | 39.33 |
| No | 78 | 52.0 |
| Don't know | 13 | 8.66 |
| Problem of plaque | | |
| Yes | 74 | 49.33 |
| No | 26 | 17.33 |
| Don't know | 50 | 33.33 |

Table 3: Efforts taken by students for maintaining their oral wellbeing.

| Visit to dentist | Frequency | % |
|----------------------|-----------|-------|
| Only Once | 21 | 14 |
| Only Twice | 23 | 15.33 |
| Only if required | 45 | 45.3 |
| Yearly | 15 | 10 |
| 6 monthly | 8 | 5.33 |
| Never | 38 | 25.33 |
| Scaling done | | |
| Yes | 37 | 24.66 |
| No | 113 | 75.33 |
| Frequency of scaling | | |
| Once | 13 | 8.66 |
| Twice | 8 | 5.33 |
| 6 monthly | 2 | 1.33 |
| Dentist recommended | 14 | 9.33 |
| Never | 113 | 75.33 |

It was observed that students using mouth wash 22.2% had significantly less problem of bad breath as compared to students who were not using 6.7% (Table 4). Similarly tongue cleaner use 16% also was found to be useful in preventing problem of bad breath.

From the above Table 4 it appears that more number of students who were having problem of bad breath were more likely to use mouth wash, tongue cleaner, fluoridated chewing gum, floss and rinsing after snack.

These findings can be explained by the fact that when these students might have visited the dentist for their dental problem they were advised to use above mentioned preventive techniques to prevent further damage.

Hence increased awareness about dental problem and ways to prevent them has led to the change in behavior of these students; a good example of behavior change communication.

Table 4: Association of dental cavities problem with various parameters.

| Variables | | Problem of Cavities | | Total | Chi square | P-value |
|--------------------------------|-----|---------------------|------------|-------------|------------|---------|
| | | Present (%) | Absent (%) | | | |
| Use of mouth wash | Yes | 27 (60.0) | 18 (40) | 45 (100) | 8.550 | <0.05 |
| | No | 36 (34.3) | 69 (65.7) | 105 (100) | | |
| Use of tongue cleaner | Yes | 32 (39.5) | 49 (60.5) | 81 (100) | 0.450 | >0.05 |
| | No | 31 (44.9) | 38 (55.1) | 69 (100) | | |
| Use of floss | Yes | 11 (68.8) | 5 (31.3) | 16 (100.0) | 5.261 | <0.05 |
| | No | 52 (38.8) | 82 (61.2) | 134 (100.0) | | |
| Use of fluoridated chewing gum | Yes | 13 (46.4) | 15 (53.6) | 28 (100.0) | 0.277 | >0.05 |
| | No | 50 (41.0) | 72 (59.0) | 122 (100.0) | | |
| Rinsing after snack | Yes | 55 (45.1) | 8 (28.6) | 122 (100.0) | 2.548 | >0.05 |
| | No | 8 (54.9) | 20 (71.4) | 28 (100.0) | | |

DISCUSSION

Dental health is an important issue as bright and healthy teeth are the mirror of healthy body. Oral health is usually ignored not only by common people but also by medical professionals so basically this study was conducted keeping in mind this fact that today's students are tomorrow's doctor. In this study 56.7% students were using soft tooth brush, similar findings was observed by Amith et al in his study on paramedical staff in Mangalore while two other studies conducted in different parts of the world it was observed that 58% of medical students in Manipal and 66% of medical officers in Nigeria were using medium tooth brush. In this study 69.3% of students change their tooth brush every six monthly, while a study by Amith et al⁶ found paramedical staff change their tooth brush once in three months.⁶⁻⁸

64% medical students use fluoridated tooth paste while in a comparative study it was 58.7% and 55.1% in a study in

Chennai.^{7,9} 58% graduates from north India used the fluoridated tooth paste. 63.3% of students were brushing daily once a day, similar findings were observed in a study in which 45% were brushing once a day, while in study in Nigeria 66% were brushing more than once and 55.9% among dental professionals and 48.7% nursing students in a study in Rohilkhand were brushing twice daily.^{7,8-10,11}

In our study 79.3% were rinsing mouth after meals, similar results (85.8%) of medical graduates were obtained from a comparative study by Dolar Doshi et al.⁷ Jindwani¹² in a study in Rewa reported 73.8% of MBBS students were rinsing mouth after meals.

Only 27.3% of medical graduates were using mouthwash and 72.7% were not, similar findings i.e. 24.1% were observed among medical students of Manipal medical college⁷ but only 4.54% nursing students were found to use it in a study in Rohilkhand.¹¹ 52% students were

found to use tongue cleaner in our study which is same as seen in Manipal study⁷ where 51% and 55% in paramedical staff observed by Amith et al⁶ were using tongue cleaner. In a study in Riyad city¹³ less than 50% health professionals used mouth wash and dental floss as cleaning aid. 39.33% reported the problem of cavities, 91.7% elder individuals (>60years) in Delhi study¹⁴ were found to have dental caries. Problem of Plaque was seen in 49.33% of graduates in our study while in a Rohilkhand¹¹ study 45% nursing student had correct knowledge regarding the role of dental plaque as caries producing agent. In our study maximum number (45.3%) of students visited dentists only when required while 25.33% never visited dentists. In a study⁷ 68.4% medical students visited dentists only when required and 20.8% never visited dentists. In a study by Amith et al⁶ 56% visited dentists only when required and 8% never visited dentists. 49.5% visited dentists only when required in a nursing students in Rohilkhand¹¹ study. 66.7% of the medical students in Riyadh city visited the dentist whenever they get pain in their tooth.

CONCLUSION

The study highlights the fact that preventive behavior among medical students increased after they experienced some or the other oral health problem for which they were advised to follow these preventive practices so that the severity and extent of the disease does not progress. The correct knowledge about maintaining good oral health needs to be given to the individuals in an effective manner at earliest so that it becomes a part of their life style. Medical students are definitely the future role models for the society; however every student (medical or nonmedical) should get the correct information about maintaining their oral health. Further research is required on a larger scale so that the ways to increase the promotive and preventive oral health practices can be identified (e.g. behavior change communication) to prevent the occurrence of oral health problems.

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