"A comparative evaluation of oral hygiene practices and habits among medical & dental students in Ghaziabad district"



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### **Original Research Article**

# A COMPARATIVE EVALUATION OF ORAL HYGIENE PRACTICES AND HABITS AMONG MEDICAL & DENTAL STUDENTS IN GHAZIABAD DISTRICT

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#### **Abstract**

**Introduction:** Oral health is as an essential component of general health & is determined by knowledge of oral health behaviors. Factors like tobacco smoking, alcohol, nutritional status, and stress are associated with a wide range of oral diseases. Many oral conditions are intimately related to systemic diseases & total health care requires the combined efforts of the medical and dental professions. It is believed that dental professionals/ students get a better insight into good oral hygiene practices.

**Aim:** The present study was carried out to assess & compare the oral hygiene practices and habits among medical & dental students.

**Materials and Methods:** A structured questionnaire was prepared to inquire about oral hygiene practices, adverse oral habits, existing dental problems, dental service utilization patterns and attitude toward dental treatment& was distributed among 200 dental and 200 medical students of the second year.

**Observations:** Medical students had much better knowledge of some of oral hygiene practices as compared to dental students. Adverse oral habits & dental problems were comparatively more in dental students. However, the habit of regular dental checkup was more in dental students. The idea of early oral prophylaxis was lacking in both groups.

**Discussion**: To improve an individual's overall health and well-being, oral health promotion programs providing education regarding proper eating habits, effective maintenance of oral hygiene, and avoiding tobacco use can go a long run in improving oral health among the students.

Keywords: oral hygiene practices, adverse oral habits, dental problems, dental checkup, comparison, medical and dental students

#### Introduction

Oral health is as an essential component of general health & can be defined as "a standard of health of oral and

related tissues which enable an individual to eat, speak and socialize without active disease, discomfort or embarrassment and which contributes to general well-being.

"A comparative evaluation of oral hygiene practices and habits among medical & dental students in Ghaziabad district"

Good Oral health knowledge is always associated with better oral health. (1)

Oral health is significantly related to oral health behaviors and their knowledge. Knowledge of oral health contributes to good oral health, but unless attitudes and habits are developed and put into practice, little will be gained. (2)

According to the World Health Organization (WHO), "Oral health means being free of diseases and disorders that affect the mouth and oral cavity." Several factors including social, behavioral, and medical seem to play a role in oral disease progression. Oral Health-Related Quality of life has become a priority for specialists as late as the 1980s, who are focusing on evaluating the consequences of oral diseases on the life of the individual and the establishment of proper measures in order to cancel the negative effect of oral disease on the quality of life. Both from a personal and a medical point of view, the relation between the quality of life and oral health is defined as the evaluation of the way in which functional, psychological ("the looks" self-esteem). social and the (interaction and perception) traumatizing and uncomfortable experiences affect an individual's well-being. (3)

A number of factors such as hygiene, tobacco smoking, alcohol, nutritional status, and stress are associated with a wide range of oral diseases. This forms the basis for the common risk factor approach for prevention of oral diseases. Regarding the prevention of oral disease, oral hygiene is the most significant among these factors. (4)

The oral health concern of an individual is dependent on the attitude of a person. These attitudes naturally reflect their own experiences and cultural perceptions. Therefore, oral health-care needs to be addressed by a multifactorial approach and should be integrated into comprehensive health-promoting strategies and practices. Oral health promotion is needed within health-care practices of physicians. Raising

public awareness about oral health may assist in early diagnosis. (5)

Oral diseases are a major public health concern due to the high prevalence and its impact on quality of life. Many studies have shown that lack of knowledge among rural people and negligent behavior among urban people are causes of dental diseases. Hence there is a need for a study to be conducted to evaluate oral hygiene awareness and dental health problems in medical students.

Oral self-care practices have been proved to be an effective preventive measure at the individual level for maintaining good oral health as part of general health. Studies have shown that brushing, particularly with fluoride toothpaste, reduces dental caries.

Regular dental checkups and nonsmoking are recommended for maintaining optimal oral health. To improve the oral health of the populations, WHO has set the promotion of self-care of as one of the goals. Recommended oral self-care (ROSC) includes tooth brushing more than once a day, lesser consumption of sugar-containing snacks once daily or rarely and regular use of fluoride-containing toothpaste. (7)

During the past 20 years, there has been a reduction in the prevalence of dental caries and periodontal diseases among the population of industrialized countries. In contrast, dental caries and periodontal diseases are increasing in some developing countries especially, where preventive programs have not been implemented properly. With proper knowledge and oral health behavior, health care professionals can play an important role in the oral health education of individuals and groups and act as role models for patients, friends, families and the community at large. Before health professionals are trained as oral health educators, there is a need to determine the status of their own oral health knowledge and behaviors. [8]

Dental students, the future leaders in oral health care, have a significant role to play in public oral health education and its

"A comparative evaluation of oral hygiene practices and habits among medical & dental students in Ghaziabad district"

promotion; but their own oral-health behavior must improve if they are to serve as positive models for their patients, families, and friends. Dental student's oral-health attitude reflects their understanding of the importance of disease prevention and their commitment to improving their patients' oral health; this attitude should be developed and reinforced during undergraduate training. (9)

#### Aim

The study was undertaken to assess & compare oral hygiene practices, adverse oral habits, existing dental problems, dental service utilization patterns and attitude toward dental treatment among dental and medical students.

#### **Materials and Methods**

The present study was a crosssectional study carried out on students undergoing BDS& MBBS training. Ethical approval to conduct the study was obtained from the Ethical Committee of the Universities. Institution The students recruited for this study were dental students of Shree Bankey Bihari dental college Ghaziabad and MBBS students of Santosh college Ghaziabad. medical Informed consent was taken from all the participants before the study. A structured questionnaire was prepared to inquire about oral hygiene practices, adverse oral habits, existing dental problems, dental service utilization patterns and attitude toward dental treatment& was distributed among 200 dental and 200 medical students of the second year. Variables used to assess various oral hygiene practices were based on the work done by Singh MS et al (10). The data, thus, collected was compiled and put to statistical evaluation.

#### **Statistical Analysis**

The data were analyzed using SPSS 14 software. Pearson's Chi-square test was used for comparison between the groups and P < 0.0001 statistically highly significant.

### **Results:**

# A. Oral hygiene practices: This involves brushing habits

Following variables were evaluated

- 1. Frequency of brushing
- 2. Duration of brushing
- 3. The technique of tooth brushing
- 4. Dentifrices used
- 5 Type of bristles of the toothbrush,
- 6. Replacement of brush

# 1. The frequency of Brushing (Refer Table 1)

Brushing habits once a day was high in dental (67%) as compared to medical students (41%). Brushing twice was high in medical group (49%) as compared to dental (27%) Brushing thrice was high in medical group (10%) as compared to (6) in dental ones. Hence paradoxically a better sense of oral hygiene was observed in medical students.

#### 2. Duration of Brushing (Refer Table 1)

Duration of brushing for 30-60 seconds almost same in both groups 1-2 mints duration was more in medical group (50%) as compared to that in the dental group (27%); conversely, 2-5 minutes duration was more in the dental group (25%) as compared to the medical group (21%). Variable brushing duration was seen more in dental (50%) than medical students (16%).

It appeared that dental students were aware of the advantages of proper brushing time.

# 3. The technique of Brushing (Refer Table 1)

Greater incidence of Bass technique was seen in dental students (27%) as compared to the medical group (21%). Similarly greater incidence of scrubbing technique was found in the dental group (36%) as a comp to medical group (30%). Greater incidence of variable technique was noticed in med (49%) as a comp to dent (37%).

Dental students appeared to be more serious about brushing technique because of the knowledge gained by dental subjects.

### 4. Dentrifices Used (Refer Table 1)

The use of fluoridated dentifrice had a similar incidence in both medical and dental groups (40-41%).

"A comparative evaluation of oral hygiene practices and habits among medical & dental students in Ghaziabad district"

Only (02%) of dental students used non-fluorinated dentifrices as compared to (12%) of medical students. Herbal dentifrices were used more in the dental group (51%) as a comp to medical ones (37%).

Variability in use of dentifrice was seen more in the medical group (12%) as compared to dental group (07%). Dental students were more in favor of herbal products.

# 5. Type of Bristles of Tooth Brush (Refer Table 1)

(36%) of dental students preferred soft bristles as compared to only (28%) of medical students -; whereas medium

textured bristles were used more by medical students (54%) as a comp to the dental group (46%). The use of hard bristles was the same in both (17%).

### 6. Replacement of Brush (Refer Table 1)

Replacement of toothbrush only after bristles fray away, was seen in a higher incidence in both groups but it was more in the dental group (70%) as a comp to medical group (53%). Replacement of brush >3months was seen more in the medical group (15%) as compared to dental group (07%). Similarly, replacement of brush >6months was seen more in medical (33%) as compared to dental group (23%).

**Table 1:** Comparision of various variables of oral hygeine practices betwee medical & dental students

| Particulars               | Medical% | Dental % | chi square | P -value |  |  |
|---------------------------|----------|----------|------------|----------|--|--|
| 1.FREQUENCY OF BRUSHING   |          |          |            |          |  |  |
| ONCE                      | 41.01    | 67.00    | 0.0004     | 0.98     |  |  |
| TWICE                     | 49.00    | 27.00    | 0.0003     | 0.98     |  |  |
| THRICE                    | 10.00    | 6.00     | 0.16       | 0.68     |  |  |
| 2. DURATION OF TOOTH BR   | USHING   |          |            |          |  |  |
| 30-60 SEC                 | 13.50    | 12.50    | 0.78       | 0.37     |  |  |
| 1-2 MINTS                 | 49.50    | 25.00    | 0.25       | 0.61     |  |  |
| 2-5 MINTS                 | 21.00    | 24.50    | 0.46       | 0.49     |  |  |
| VARIABLE                  | 16.00    | 50.00    | 0.0006     | 0.98     |  |  |
| 3.TECHNIQUE OF TOOTH BR   | USHING   |          |            |          |  |  |
| BASS                      | 21.00    | 27.00    | 0.22       | 0.63     |  |  |
| SCRUB                     | 30.00    | 36.00    | 0.30       | 0.58     |  |  |
| VARIABLE                  | 49.00    | 37.00    | 0.07       | 0.79     |  |  |
| 4. DENTIFICE USED         |          |          |            |          |  |  |
| FLOURINATED               | 40.00    | 41.00    | 0.88       | 0.34     |  |  |
| NONFLOURINATED            | 12.00    | 1.50     | 0.312      | 0.57     |  |  |
| HERBAL                    | 36.50    | 50.50    | 0.033      | 0.85     |  |  |
| VARIABLE                  | 11.50    | 7.00     | 0.14       | 0.70     |  |  |
| 5. TYPE OF BRISTLES OF BR | USH      |          |            |          |  |  |
| SOFT                      | 28.00    | 36.00    | 0.16       | 0.68     |  |  |
| MEDIUM                    | 54.50    | 46.00    | 0.23       | 0.63     |  |  |
| HARD                      | 17.50    | 18.00    | 0.91       | 0.34     |  |  |
|                           |          |          |            |          |  |  |

"A comparative evaluation of oral hygiene practices and habits among medical & dental students in Ghaziabad district"

| 6. REPLACEMENT OF BRUSH |       |       |       |      |  |
|-------------------------|-------|-------|-------|------|--|
| >3MONTHS                | 14.50 | 6.50  | 0.013 | 0.90 |  |
| >6MONTHS                | 33.00 | 23.50 | 0.073 | 0.78 |  |
| AFTER BRISTLES FRAY     | 52.50 | 70.00 | 0.03  | 0.86 |  |

# B. Interdental Aids Used (Refer to Table 2)

No interdental aid was used in the majority of cases (41-37%) in both dental and

medical groups. About 20% of dental students used floss as interdental aid while like 20 % of med students used water irrigation

**Table 2:** Comparision of various types of inter dental aids used between medical & dental students

|    | PARTICULARS                       | Medical% | Dental % | chi square | P-value |  |  |
|----|-----------------------------------|----------|----------|------------|---------|--|--|
|    | INTERDENTAL AIDS USED BY DENTISTS |          |          |            |         |  |  |
| 1. | FLOSS                             | 17.50    | 20.00    | 0.56       | 0.45    |  |  |
| 2. | TOOTH PICK                        | 13.00    | 17.00    | 0.30       | 0.58    |  |  |
| 3. | INTERDENTAL FLOSS                 | 9.50     | 8.00     | 0.61       | 0.43    |  |  |
| 4. | WATER IRRIGATION                  | 20.00    | 10.00    | 0.01       | 0.92    |  |  |
| 5. | NONE                              | 36.50    | 40.50    | 0.52       | 0.47    |  |  |
| 6. | COMBINATION                       | 3.50     | 4.50     | 0.62       | 0.43    |  |  |

#### C. Adverse Oral Habits (Refer to Table 3)

More than 50% of the medical group had no adverse oral habits as compared to only 27% of dental with no adverse oral habits.

Smoking & tobacco chewing was seen maximally in dental students (17% each), as compared to med students (9% & 10% respectively). The intake of caffeine products was almost the same in both groups

**Table 3:** Comparision of various adverse oral habits between medical & dental students

|    | Particulars         | Medical% | Dental % | chi square | P-value |  |
|----|---------------------|----------|----------|------------|---------|--|
|    | ADVERSE ORAL HABITS |          |          |            |         |  |
| 1. | SMOKING             | 9.50     | 17.00    | 0.04       | 0.84    |  |
| 2. | TOBACOO CHEWING     | 5.00     | 16.50    | 0.0004     | 0.98    |  |
| 3. | CAFFINE             | 23.00    | 21.50    | 0.75       | 0.38    |  |
| 4. | OTHERS              | 8.50     | 17.50    | 0.012      | 0.91    |  |
| 5. | NONE                | 54.00    | 27.50    | 0.306      | 0.58    |  |

# **D.** Existing Dental Problems (Refer to Table 4)

About 64% of medical & 40% of dental students had no existing dental problems.

The incidence of caries & bleeding gums was higher in dental as compared to medical students. Halitosis was noticed almost the same in both (14%).

**Table 4:** Comparision of various existing dental problems between medical & dental students

|    | <b>Particulars</b>     | Medical% | Dental % | chi square | P-value |
|----|------------------------|----------|----------|------------|---------|
| D  | EXISTING DENTAL PROBLE | EMS      |          |            |         |
| 1. | CARIES                 | 8.00     | 10.00    | 0.58       | 0.44    |
| 2. | HALITOSIS              | 14.50    | 13.50    | 0.88       | 0.34    |

"A comparative evaluation of oral hygiene practices and habits among medical & dental students in Ghaziabad district"

| 3. | BLEEDING    | 6.00  | 9.00  | 0.33 | 0.56 |
|----|-------------|-------|-------|------|------|
| 4. | OTHERS      | 8.00  | 11.00 | 0.44 | 0.50 |
| 5. | COMBINATION | -     | 17.00 | 0.00 | 1    |
| 6. | NONE        | 63.50 | 39.50 | 0.01 | 0.92 |

# E.Regular Dental Check Up (Refer to Table 5)

Regular dental check-up by people was maximally seen only as the subjects

were in problem both in medical and dental students (52 % &46% respectively).

Three monthly, six monthly or yearly checkup was low in both groups, though on a higher side in the dental group.

Table 5: Comparision of regular dental check up habits between medical & dental students

|    | <b>Particulars</b>      | Medical% | Dental % | chi square | P -value |  |
|----|-------------------------|----------|----------|------------|----------|--|
|    | REGULAR DENTAL CHECK UP |          |          |            |          |  |
| 1. | THREE MONTHS            | 7.00     | 8.00     | 0.72       | 0.39     |  |
| 2. | SIX MONTHS              | 11.50    | 12.50    | 0.77       | 0.38     |  |
| 3. | _> THAN ONE YEAR        | 14.50    | 20.00    | 0.19       | 0.66     |  |
| 4. | IN PROBLEM              | 52.00    | 46.00    | 0.39       | 0.53     |  |
| 5. | NEVER                   | 15.00    | 13.50    | 0.69       | 0.40     |  |

#### F. Oral Prophylaxis

Majority of students (64% medical & 56% dental) preferred prophylactic dental checkup only after one year. A prophylactic

dental checkup after every 3 months or 6 months was very low in both subjects with the almost the same incidence in both. (**Refer to Table 6**)

**Table 6:** Comparision of oral prophylaxis habits between medical & dental students

|    | Particulars      | Medical% | Dental % | chi-square | P value |  |  |
|----|------------------|----------|----------|------------|---------|--|--|
| OF | ORAL PROPHYLAXIS |          |          |            |         |  |  |
| 1. | THREE MONTHS     | 6.50     | 7.00     | 0.85       | 0.35    |  |  |
| 2. | SIX MONTHS       | 10.00    | 11.00    | 0.76       | 0.38    |  |  |
| 3. | >ONE YEAR        | 64.00    | 56.00    | 0.30       | 0.58    |  |  |
| 4. | NEVER            | 19.50    | 26.00    | 0.17       | 0.68    |  |  |

#### Discussion

The oral cavity is the mirror of our own body because oral manifestations accompany many systemic diseases. Good oral health is essential to improve an individual's overall health and well-being, and is essential to improve an individual's overall health and well-being (11)

It has been seen that health practices of physicians determine what they tell their patients. A similar trend can be anticipated among dental practitioners as well. The dental community, who supposedly are the role models as far as oral health is concerned, play a pivotal role in promoting

behavioral change in the society. It is thought that the difference in the level of educational qualification also has an influence on oral health practice. (12)

Keeping this in mind, the study was conducted to provide insight into the oral hygiene status, behavior and concepts among dental professionals and compared with medical students. Various surveys were conducted on this topic and varied results by different authors are as under:

A review study on **Oral hygiene** measures and promotion by Choo A et al (2001) revealed that oral hygiene measures, appropriately used and in conjunction with

"A comparative evaluation of oral hygiene practices and habits among medical & dental students in Ghaziabad district"

regular professional care, are capable of virtually preventing caries and most periodontal disease and maintaining oral health. Tooth brushing and flossing are most although commonly used, interdental brushes and wooden sticks can offer periodontally advantages in involved dentitions. Chewing sugar-free gums as a salivary stimulant is a promising cariespreventive measure. Community hygiene promotion must attempt maximize opportunities for oral health for all and reduce inequalities by removing financial and other barriers. (13)

A study on Oral hygiene practices, smoking habit, and self-perceived oral malodor among Saudi Arabian dental students by Almas et al (2003) revealed following findings. Seventy-eight percent of male and 62% of female students experienced bad breath after waking up. Brushing was prevalent among 81% male and 99% of female students. Both miswak (chewing sticks) and tooth brushing were used by 53% male and 83% female students. Fifty-seven percent of male students and 44% of female students reported caries. Bleeding gingiva was experienced by 26% of males and 14% of females. Dry mouth was common among 14% of males and 17% of females, while smoking was prevalent among 13% of males and 2% of females. Tea drinking was common among 44% of males and 37% of females, showing that students had better oral hygiene female practices. (14)

Masanja IM et al (2004) conducted survey on the **Knowledge** gingivitis and oral hygiene practices among secondary school adolescents in rural and urban Morogoro, Tanzania on 196 of which 58.7% were females, and 52% were from urban schools. The responses were graded into three criteria namely 'lack of knowledge', 'partial knowledge' and 'total or full knowledge'. There was a partial knowledge about gingivitis and full knowledge of the basic oral hygiene measures among secondary school teenagers. The difference between rural and

urban residence the level on of understanding was statistically significant in relation to tooth brushing practices (P = 0.0088), necessity of using toothpaste (P = 0.0204), reasons for using toothpaste (P = 0.0057), signs and symptoms of gingivitis (P = 0.0261) and treatment of gingivitis (P =However, 0.0106). there were statistically significant differences in the distribution study participants, of understanding of tooth brushing practices, brushing, reasons for tooth causes. prevention and complications of gingivitis.

**Tseveenjav et al. (2004)** conducted a study on oral hygiene practice by a dentist in Mongolia & reported that the incidence of dentists brushing twice a day was (81%). (16)

**Hadi et al. (2007)** reported that 59% of Iranian dentists brushed twice daily. (17)

A survey by Gopinath V. (2010) on Oral hygiene practices and habits among dental professionals in Chennai reported that about 55.9% of the dentists brushed twice a day and this was lesser when compared to the above findings. 98.9% of south Indian dentists brushed at least once daily. Female dentists were found to brush twice daily more commonly than their male counterparts; 59.4% of dentists consumed sugar-containing snacks at least once between meals and 40.6% of the dentists consumed sugar-containing snacks twice or more between meals. Female dentists consumed more sugar-containing snacks as compared to male dentists. (12)

Carneiro Lorna et studied Oral Health Knowledge and **Practices of Secondary School Students, Tanga, Tanzania** & found about (88.4%) students had adequate level of knowledge on causes, prevention, and signs of dental caries, (96.8%) on causes and prevention of periodontal diseases, 695 (88.5%) on cigarette smoking as cause of oral cancer, (98.1%) students on importance of dental check-ups. The majority (91.3%) had an adequate practice of sugary food consumption: while (72.4%)had acceptable frequency of tooth brushing,

"A comparative evaluation of oral hygiene practices and habits among medical & dental students in Ghaziabad district"

(2.4%) brushed at an interval of twelve hours, and (39.9%) visited for a check-up. Majority of students had an adequate level of knowledge on oral health but low level of oral health practices. Both genders had a similar level of knowledge with male predominance in oral health practices. Age had no influence on the level of oral health knowledge and practices of students. (1)

Baseer MM et al (2012) in their study on Oral health knowledge, attitude, and practices among health professionals in King Fahad Medical City, Riyadh, found that the Attitude toward professional dental care varied among the various health professionals. Less than 50% of health professionals showed a positive attitude toward regular visits to the dentist; a toothache was the driving factor for their last visit and fear of drill was the reason for not visiting the dentist. In the present study, 99% of the study subjects used a toothbrush and paste as the preferred method of oral hygiene and less than 35% used dental floss. More than 50% brushed their teeth in the morning for more than 2 min. Overall, 77.9% of health professionals brushed their teeth once in the morning every day. Around 3.9% brushed their teeth two times daily; the first time in the morning and second time at night before going to sleep. (18)

Laxman Kaira et al (2012) in a study on Oral Health-Related Knowledge, Attitude and Practice among Nursing Students of Rohilkhand Medical College and Hospital found that

A majority of the respondents were practicing healthy oral hygiene practices that included brushing twice a day with toothbrush and toothpaste for an adequate duration of 2 to 3 minutes. Almost 87% of them were aware of the diseased gingival condition and the consequences due to the accumulation of plaque. Almost half of the participants visited a dentist only on pain. However, a majority of them had given importance to their teeth equally as their general health. It was seen that the knowledge, attitude, and practice of nursing students about oral health were adequate,

but further improvements can be encouraged. (19)

An epidemiological survey on "A comparative evaluation of oral hygiene practices, oral health status, and behavior between graduate and post-graduate dentists of North India" by Singh MS & Tuli AK(2013) reported that the majority of dentists in both groups(graduates-group A, post graduates-group-B) brushed their teeth for 1-2 min twice daily and the difference between them was statistically significant. 67% of the dentists in Group A used modified Bass technique as compared to 53% in Group B. Majority of the dentists in both the groups (69% in Group B and 58% Group A) used fluoridated toothpaste and toothbrushes with soft bristles (around 69% in Group B and 48% in Group A). Majority of dentists in both the groups did not report the use of any interdental cleaning aid. Significantly more dental problems were reported by Group A as compared to Group B.

Majority of the dentists in both the groups did not report any adverse habit. However, smoking was reported by 11.2% and 4% of dentists in Group A and B respectively. Significantly number of Group B dentists had regular dental checkups & oral prophylaxis than Group A. (10)

Giri D et al (2014) studied the Oral health status of postgraduate dental students in Eastern Nepal. It was **observed that** all the subjects used a toothbrush with soft bristles to brush their teeth. Majority of the subjects (64.5%) brushed their teeth twice daily. Majority of the dentists (64.5%) used a modified Bass method for removing plaque, which is probably the most popular method taught today. 20 out of 31 subjects (64.5%) were non-smokers. This high percentage of the dentist's not consuming tobacco could be because of their knowledge regarding the consequences of tobacco consumption. It was also observed that a majority of the subjects who were examined belonged to higher socio-economic strata with higher levels of education, having good oral

"A comparative evaluation of oral hygiene practices and habits among medical & dental students in Ghaziabad district"

hygiene and minimal gingival inflammation. Most of the subjects examined high level of dental awareness and access to dental and medical health care facilities. (3)

Simranpreet Kaur et al (2015) studied Oral Health Knowledge, Attitude **Practices** and amongst Health Professionals in Ludhiana & found that Males had a higher oral knowledge score than the females. The doctors had the highest score knowledge followed by pharmacists, nurses, and technicians. Attitude towards treatment varied. All participants believed that regular visits to the dentist were necessary. The driving factor for their last visit was dental caries. The most common reason mentioned by the health professionals for not visiting the dentists was a busy schedule. More than 50% of professionals brushed teeth more than 3 minutes. Flossing was more common in females as compared to males and mouthwash was more frequently than floss. (8)

Prabhakar I et al(2015) in their study on determinants of preventive oral health behavior among senior dental students of Greater Noida, India observed that more than half of the respondents (56.25%) agreed that the frequency of sugar consumption has a greater role in producing caries. It was observed that 93.75% of students found preventive dentistry practice to be useful. Significant gender differences were observed in the use of recommended oral self-care, knowledge of using sealant as a caries preventive measure and fluoridation of drinking water as an effective way of preventing caries. (7)

An Evaluation of oral-hygiene awareness and practice among dental students of Nellore (AP) was done by Darivemula Daya et al (2017). The results of the present study indicated that the percentage score for oral-health knowledge, attitude, and behavior of clinical students were significantly higher than that of the preclinical students. The percentage of students brushing their teeth twice daily or

more often was four times higher among the clinical students than that among the preclinical students. This suggests that the level of student's self-care may have been influenced by their course contents. The rate of the usage of dental floss among the preclinical students was 52.8% and among the clinical students was 71.1% (P< 0.001) The findings of the present study highlights that the students had rather low oral-health awareness at the beginning of their dental education, i.e., preclinical students have low oral-health awareness when compared to clinical students. The oral-health attitude and behavior of dental students improved with the increase in the level of education. (9)

Kinner Desai (2018)**Assessment of Oral Hygiene Awareness** among College Students in Surat City observed that Out of the 231 students, 79.4% were males. The majority (63.6%) of the students cleaned teeth, 105 students always used fluoridated toothpaste, one third have a habit of snacking between meals, and 34.6% of the students changed their toothbrushes once in 2 months, 61 students had never visited a dentist in their lifetime. Around 43.7% of the students were thought that poor brushing habit is the reason for tooth decay. (20)

Khalid et al (2018) in their study Knowledge, Attitudes and Practices Related to Oral Health of Dental, Medical and Pharmacy Students at the University of Science and Technology in Yemen, found that the highest rate of knowledge scores of the students related to oral health was (87%) with better response in Dental students (95%) than Medical and Pharmacy students (84% and 82% respectively). Nearly 72% of them (93% Dental, 65% Medical and 58% Pharmacy) believed that regular visits to the dentist are necessary. Moreover, 56.33% of them (88% Dental, 43% Medical and 38% Pharmacy) showed that private clinic was voted as the preferred place of visit for dental treatment. Approximately 77% of them (86% Dental, 74% Medical and 71% Pharmacy) had

"A comparative evaluation of oral hygiene practices and habits among medical & dental students in Ghaziabad district"

visited a dentist at least once in their lifetime. About 61.67% of them (77% Dental, 56% Medical and 52% Pharmacy) brushed their teeth twice daily. (21)

#### **Summary**

Summing up the observations, our study revealed that medical students had a better knowledge of only some of the oral hygiene practices like frequency of brushing, type of bristles of toothbrush & replacement of tooth brush as compared to dental students. On the other hand, dental students showed a much better concept of other oral hygiene practices like duration of brushing, the technique of brushing & type of dentifrices to be used. The habit of regular dental checkup was also seen more in dental students

However the incidence of adverse oral habits like smoking, tobacco chewing & dental problems like dental caries, bleeding gums was comparatively more in dental students as compared to medical students. The concept of usage of interdental aids & that of early oral prophylaxis was lacking in the majority of students in both groups.

Our observations were partially in accordance with various previous findings which showed that almost all oral hygiene practices were better observed by dental students /professionals. But paradoxically our dental group showed some poor oral habits & dental problems contrary to the fact that they had a better concept of oral hygiene. The observations got were found not to be statistically significant. It was concluded that for statistical evaluation, larger sample size would be required.

#### **Conclusion**

Generally, dental students/professionals are supposed to be perfect & meticulous in their attitude towards oral hygiene procedures as compared to the commoners. It is believed that dental students get a better insight into good oral hygiene practices as they pass through different phases of dental training. However, the results of the present study reveal that the oral hygiene practice of dental groups is far from ideal. The

observations of some poor oral habits & dental problems amongst the dental group as compared to a medical group of our study, can be explained by the fact that both medical & dental students come directly from schools from where the concepts of oral hygiene are inculcated to all students on a common pattern. Dental students are expected to be much better than others because as they pass through various teaching phases of dentistry, they become fully aware of various aspects of good dental hygiene. However, the exposure of young people to various bad habits like smoking, drinking, chewing of tobacco etc. & finally their addiction & dependence on them "as a sign of so called belonging to high society", deviates our young school leaving children from normal habits & social life.

Hence it is recommended to instill a more positive oral health education right from the school level. All young students should be encouraged to have a more positive attitude toward visiting a dentist regularly and warned against the ill-effects of tobacco smoking & drinking. Dentists should realize their role in disseminating positive oral health concepts to their patients and the general public, but before this, they themselves should follow the ideal regimen and act as role models for the society.

#### **Bibliography**

- 1. Lorna Carneiro, Msafiri Kabulwa, Mathias Makyao, Goodluck Mrosso, and Ramadhani Choum Oral Health Knowledge and Practices of Secondary School Students, Tanga, Tanzania. International Journal of Dentistry; Volume 2011 (2011), Article ID 806258, 6 pages.
- 2. Veera Reddy, Darshana Bernardi, Satish Gaduputi, Nandita Kshetrimayum, Sibyl Siluvai and Chava Venkata Konda Reddy. Oral health-related knowledge, attitude, and practice among the pre-university students of Mysore city, J Int Soc Prev Community Dent. 2014 Sep-Dec; 4(3): 154–158.

"A comparative evaluation of oral hygiene practices and habits among medical & dental students in Ghaziabad district"

- 3. Giri D, Singh VP, Giri N, Shah R. Oral health status of postgraduate dental students in Eastern Nepal, International Journal of Advanced Research (2014), Volume 2, Issue 5, 374-379
- 4. Braimoh Omoigberai Bashiru Owoturo Energy Omotola Oral health knowledge, attitude and behavior of medical, pharmacy and nursing students at the University of Port Harcourt, Nigeria, J oral Res Rev; Year: 2016 | Volume: 8 | Issue: 2 | Page: 66-71.
- Preethi MY, Suganya CS, Ganesg R Knowledge, attitude, and practice toward oral health among pharmacy students in Chennai; Indian J Multidiscip Dent. Year: 2016 | Volume: 6 | Issue: 1 | Page: 20-24.
- 6. Vinod S. Kamble, Santosh M Biradar, Aparna Takpere, Shrinivas Reddy. Evaluation of oral hygiene awareness and practices among medical students. IJCMPH 2016 Jan;3(1):83-85
- 7. Ishan Prabhakar, K Jayaprakash, KK Shivalingesh, Bhuvandeep Gupta, Neha Gupta, Richa Anand. Determinants of preventive oral health behavior among senior dental students of Greater Noida, India. J Indian Assoc Public Health Dent; Year: 2015 | Volume: 13 | Issue: 1 | Page: 63-66
- 8. Simranpreet Kaur<sup>1\*</sup>, Balpreet Kaur<sup>2</sup>, and Sunny Singh Ahluwalia<sup>3.</sup> Oral Health Knowledge, Attitude and Practices amongst Health Professionals in Ludhiana, India. Dentistry; 2015, 5:315.
- 9. Darivemula Daya, Ummadisetty Teja, Dilshan Babu Paturu, Bhumanapalli Venkata Ramesh Reddy, Sreenivas Nagarakanti, Vijay Kumar Chava. Evaluation of oralhygiene awareness and practice among dental students. J NTR Univ Health Sci Year: 2017 | Volume:6 issue:1, Page 24-28
- 10. MaanSurinder Singh, AaswinKaurTuli. A comparative evaluation of oral hygiene practices, oral health status, and

- behavior between graduate and postgraduate dentists of North India: An epidemiological survey; J Int Soc Prevent Community Dent, 2013; vol: 3| Issue: 1| p: 19-24.
- 11. Vaish S, Ahuja S, Dodwad V. A comparative evaluation of oral hygiene practices and periodontal status among dental and paramedical students: An epidemiological survey. Journal of Indian Dental Association 2010; 4:343-346.
- 12. Gopinath V Oral hygiene practices and habits among dental professionals in Chennai. Oral hygiene practices and habits among dental professionals in Chennai. Indian J Dent Res 2010; 21:195-200.
- 13. Choo A<sup>1</sup>, Delac DM, Messer LB Oral hygiene measures and promotion: review and considerations. Aust Dent J. 2001 Sep; 46(3):166-73.
- 14. Almas K<sup>1</sup>, Al-Hawish A, Al-Khamis W.Oral hygiene practices, smoking habit, and self-perceived oral malodor among dental students. J Contemp Dent Pract. 2003 Nov 15; 4(4):77-90.
- 15. Masanja IM<sup>1</sup>, Mumghamba EG Knowledge on gingivitis and oral hygiene practices among secondary school adolescents in rural and urban Morogoro, Tanzania. Int J Dent Hyg. 2004 Nov; 2(4):172-8.
- 16. Tseveenjav B, Vehkalahti M, Murtomaa H. Oral health and its determinants among Mongolian dentists. Acta Odontol Scand 2004; 62:1-6.
- 17. Ghasemi H, Murtomaa H, Vehkalahti MM, Torabzadeh H. Determinants of oral health behavior among Iranian dentists. Int Dent J 2007:57:237-42.
- 18. Mohammad Abdul Baseer, Mohammed Suliman Alenazy, Mohammad AlAsqah, Mansoor Al Gabbana, and Aleemullah Mehkari Oral health knowledge, attitude, and practices among health professionals in King Fahad Medical City, Riyadh. Dent Res J (Isfahan). 2012 Jul-Aug; 9(4): 386–392.

- "A comparative evaluation of oral hygiene practices and habits among medical & dental students in Ghaziabad district"
- 19. Kaira L, Srivastava V, et al Oral Health-Related Knowledge, Attitude and Practice among Nursing Students of Rohilkhand Medical College and Hospital: A Questionnaire Study. Journal of orofacial research, jan-March 2012; 2(1): 20-23.
- 20. Desai K, Patel S.Assessment of Oral Hygiene Awareness among College Students in Surat City. National Journal

- of Community Medicine; 2018; 9(3):236-239.
- 21. Khaled A AL-Jawfi and Arwa M Alhaj Knowledge, Attitudes and Practices Related to Oral Health of Dental, Medical and Pharmacy Students at the University of Science and Technology in Yemen. International Journal of Dentistry and Oral Health; 27 Aug 2018 Volume 4 Issue 4 |p 1-6.