

## The comparison of impact brush and paste at night and morning in dental care.

Dr. Shahida Akter<sup>1</sup>, Dr. Md. Yousuf Ali<sup>2</sup>, Dr. Chowdhury Iqbal Mahmud<sup>3</sup>, Dr. Khaleda Akter<sup>4</sup>, Dr Rozina Akter<sup>5</sup>

1. Medical Officer, Dept. of Conservative Dentistry, Bangabandhu Sheikh Mujib Medical University, Dhaka, Bangladesh
2. Associate Professor, Spinal Surgery, Dept. of Orthopaedics, Bangabandhu Sheikh Mujib Medical University, Dhaka, Bangladesh
3. Associate Professor, Orthopaedic Surgery, Dept. of Orthopaedics, Bangabandhu Sheikh Mujib Medical University, Dhaka, Bangladesh
4. Associate Professor, Dept. of Conservative Dentistry, Bangabandhu Sheikh Mujib Medical University, Dhaka, Bangladesh
5. Medical Officer, Dept. of Conservative Dentistry, Bangabandhu Sheikh Mujib Medical University, Dhaka, Bangladesh

### Abstract:

**Objective:** In this study our main goal is to compare impact of brush and paste at night and morning in dental care.

**Method:** This cross sectional study was carried out at Bangabandhu Sheikh Mujib Medical University and different private dental clinic in Dhaka from march 2018 to 1st May 2020. A total of 210 with defined dental problem were randomly select as a sample population who visited in dental care unit.

**Results:** During the study most of the study group belong to 11-15 years, 36.7% age group and majority were male, 60%. Followed by 40% patients just spent their time less than two minutes. 50% cases had gingival recession and NCCL (Non-carious cervical lesions) who just brushed their tooth once a day. Besides that, those brush their tooth once a day face more tooth decay 30% than those who brush their teeth twice a day, 5%. In gum diseases cases, 15% cases seen in group people who brush their teeth once a day whereas less frequently seen in those who brush their teeth twice a day.

**Conclusion:** Good dental health (looking after teeth and gums) is important for your overall health. Tooth decay is one of the most common diseases affecting children and adults. It can cause pain and discomfort, and can affect eating, speaking and sleeping. The good news is that tooth decay and all other problem can be reduce which was seen in group who brush their teeth twice a day. Besides that, all these dental conditions largely preventable through limiting sugary foods, regular toothbrushing, and regular dental check-ups.

**Keywords:** Dental care, brushing teeth, tooth decay.

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### I. Introduction

Achieving healthy teeth takes a lifetime of care. Even if you've been told that you have nice teeth, it's crucial to take the right steps every day to take care of them and prevent problems. This involves getting the right oral care products, as well as being mindful of your daily habits.<sup>1-2</sup>

Tooth brushing is the act of cleaning one's teeth and massaging one's gingivae for cleanliness and oral health. Bacteria plaque plays an important role in the genesis of dental caries and periodontal disease. In terms of the social element of life, effective tooth brushing helps to decrease halitosis and remove stains from tooth surfaces. The toothbrush is a tool with bristles attached to a head at the end of a handle that is used to clean teeth and massage gingival tissues. Various designs of the implement have developed over time in an attempt to improve functionality.<sup>3-5</sup>

Even everyone has the bacteria that cause tooth decay living in their mouth. When you eat sugary foods, the bacteria eat them too and produce acid, which damages the tooth surface (the enamel).<sup>6</sup>

Saliva (spit) contains minerals that help repair the tooth surface. Fluoride, found in toothpaste and most of Victoria's drinking water, also helps to repair damage. However, if over time there is more acid damage than repair, a cavity or 'hole' forms in the tooth surface.<sup>7</sup>

In this study our main goal is to compare impact of brush and paste at night and morning in dental care.

**Objective**

- To assess the impact of brush and paste at night and morning in dental care.

**II. Methodology**

This cross-sectional study was conducted from March 2018 to 1st May 2020. A total of 210 with defined dental problem were randomly select as a sample population who visited in dental care unit.

Data was inputted into a personal computer and subjected to computer analysis using the Statistical package for social science version 17.0 (SPSS). The results were presented graphically and in tabular forms. Chi square test was applied appropriately and statistical significance was inferred at  $p < 0.05$ .

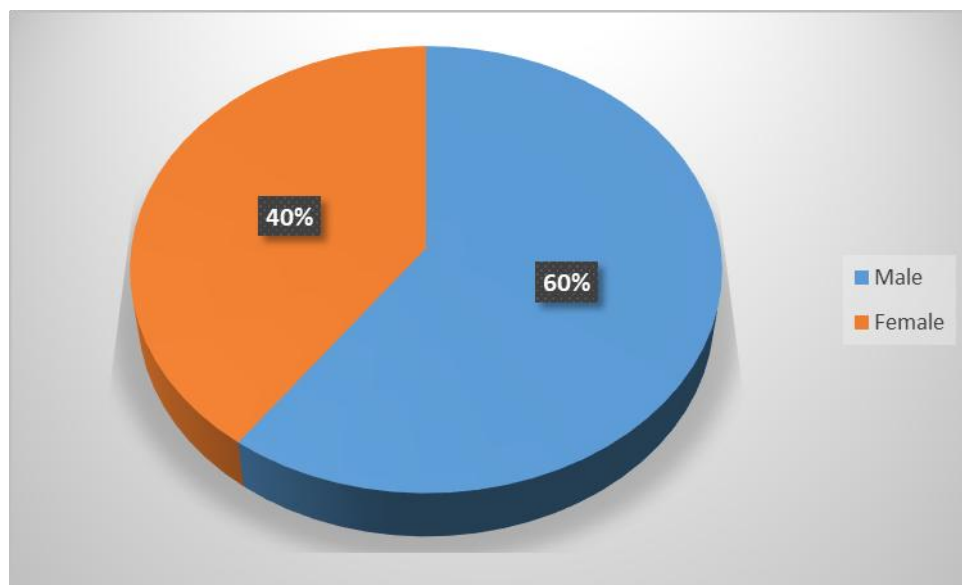
**III. Results**

In table-1 shows age distribution of the patients where most of the study group belong to 11-15 years, 36.7% age group. The following table is given below in detail:

**Table-1: Age distribution of the patients**

| Age of the patients | %     |
|---------------------|-------|
| 11-15 years         | 36.7  |
| 16-21 years         |       |
| 22-26 years         | 20.0  |
| 27-31 years         |       |
| Total               | 13.3  |
|                     | 30.0  |
|                     | 100.0 |

In figure-1 shows gender distribution where 60% were male and 40% were female. The following figure is given below in detail:



**Figure-1: Gender distribution.**

In table-2 shows distribution of the patients according to tooth cleaning material used by respondent where 40% patients just spent their time less than two minutes. The following table is given below in detail:

**Table-2: Distribution of the patients according to tooth cleaning material used by respondent**

| Variable                                       | Percentage (%) |
|--|----------------|
| Time spent in brushing:<br>Less than 2 minutes | 40%            |
| Between 2-3 minutes                            | 35%            |

|                          |     |
|--------------------------|-----|
| More than 3 minutes      | 25% |
| Toothbrush movement:     |     |
| Up and down stroke       | 52% |
| Side to side             | 35% |
| Circular                 | 13% |
| Respondents' handedness: |     |
| Right-handed:            | 90% |
| Left-handed:             | 5%  |
| Ambidextrous:            | 5%  |
| Hand used in brushing:   |     |
| Right hand:              | 96% |
| Left hand:               | 3%  |
| Both hand:               | 1%  |

In table-3 shows effects of tooth brushing practices on dental tissue where 50% cases had gingival recession and NCCL (Non-carious cervical lesions) who just brushed their tooth once a day. The following table is given below in detail:

**Table-3: Effects of tooth brushing practices on dental tissue**

|                               | Gingival recession | NCCL | GR and NCCL |
|-------------------------------|--------------------|------|-------------|
| Frequency of brush            | Yes, %             | Yes  | Yes         |
| Once a day                    | 50                 | 50%  | 18%         |
| Twice a day                   | 30                 | 5%   | 10%         |
| More than twice a day         | 20                 | 45%  | 72%         |
| Force to brush:               |                    |      |             |
| Light                         | 15%                | 5%   | 15%         |
| Moderate                      | 25%                | 6%   | 16%         |
| Heavy                         | 0%                 | 0%   | 2%          |
| Toothpaste texture:           |                    |      |             |
| • Smooth:                     |                    |      |             |
| • Smooth with small granules: | 16%                | 5%   | 20%         |
| • Smooth with big granules:   |                    |      |             |
|                               | 1%                 | 3%   | 5%          |
|                               | 0%                 | 10%  | 11%         |

In table-4 shows Distribution patients according to tooth problem and frequency of brushing where those brush their tooth once a day face more tooth decay 30% than those who brush their teeth twice a day, 5%. In gum diseases cases, 15% cases seen in group people who brush their teeth once a day where as less frequently seen in those who brush their teeth twice a day. The following table is given below in detail:

**Table-4: Distribution patients according to tooth problem and frequency of brushing**

| Frequency of brushing | Tooth decay,% | Gum diseases, % |
|-----------------------|---------------|-----------------|
| Once a day            | 30%           | 15%             |
| Twice a day           | 5%            | 3%              |
| More than twice a day | 15%           | 5%              |

#### IV. Discussion

One study found that, the frequency of toothbrushing was predominantly once a day (72.7%) and a minority brushed twice a day. A slight female preponderance was observed among the few who brush twice a day.<sup>8</sup>

Our finding is at variance with the pattern in Scottish population reported by Oliverira et al where 71% of respondents (10) brushed twice a day.<sup>9</sup>

The differences in proportion could be interpreted as an expression of a better oral hygiene practice among Scottish respondents than Nigerians. This appears to be more in female Scottish respondents than the female Nigerian undergraduates' studied.<sup>10</sup>

In our study we found a 52% use of up and down stroke and a 35% horizontal scrub technique. The difference observed may be attributed to the educational status and possible consequent better oral health awareness in an academic environment, compared with an urban Spanish population. aged 18-30 years.<sup>11</sup>

Despite the fact that respondents' measure of force used was absolutely subjective, and constitute a limitation, our finding is in agreement with the study conducted by one study which concluded that the use of

medium and hard toothbrushes and greater force applied during tooth brushing might contribute to the development and/or aggravation of non-carious cervical lesions.<sup>12</sup>

Non carious cervical lesion in one study was found in a total 11teeth out of all the teeth examined and has a prevalence of 3%, with all the cases seen in the male respondents. In a related study conducted by many author recorded that dietary and oral habits may have compounded the picture. Where it was mentioned that better enlightened in tooth brushing technique and use of safe cleansing aids are the contributing factor for reduction of tooth decay which again quite similar to our study.<sup>13-14</sup>

## V. Conclusion

Good dental health (looking after teeth and gums) is important for your overall health. Tooth decay is one of the most common diseases affecting children and adults. It can cause pain and discomfort, and can affect eating, speaking and sleeping. The good news is that tooth decay and all other problem can be reducibly seen in group who brush their teeth twice a day. Besides that, all these dental conditions largely preventable through limiting sugary foods, regular toothbrushing, and regular dental check-ups.

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