

## A study on dental cleaning methods And the extent of its impact on bacterial plaque (dental)

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### Article information

### Abstract

#### Key words

3-5 keywords which are related to the major part of research work separated by semi-columns.

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This study was experimented to determine whether the dental cleaning methods used in the community were correct or not, and to determine the extent of the impact of these methods on the formation of bacterial plaque (dental), as well as the methods of cleaning and identifying bacterial plaque, tooth decay, and oral and dental care methods, and the study was conducted during the period During the period (12) 2016 until the end of the month (6) 2017 on a random sample that includes 50 people (25 male students, 25 female students), a clinical examination was conducted inside the dental clinic at the College of Medical Technology - Misurata, during the period from month (2) to month (3).

The data that were recorded and analyzed in this study were obtained from the clinical detection of the Dental Plaque Index (D.P.I) in the mouth.

The results of the clinical examination concluded that the average (DPI) for each sample was (3.5), and this degree means heavy accumulations of thick and soft material that are clear around the tooth with the presence of soft residues between the teeth, where the highest rate of bacterial plaque was (4) and this indicates the presence of Thick and soft aggregates with the presence of discoloration of this substance around the tooth and between the teeth in (38%) of the sample, the lowest rate of bacterial plaque (0) and this indicates the absence of bacterial plaque in (8%) of the sample. It also became clear from the study that there is a good awareness of the idea of cleaning the teeth, where the teeth were 100% of the sample brushing their teeth, while the oral hygiene of religious people brushed their teeth once a day (52%) and the religion cleaned their teeth twice and their percentage was (42%) The results of the study also concluded that most of the sample (60%) depend on one cleaning method to clean their teeth, and those who follow more than one cleaning method were (40%), and those who use the correct methods for cleaning their percentage (64%) and those who use the incorrect methods were Their percentage (32%) The results of the study indicated that most of the sample members clean their teeth with brush and toothpaste, where their percentage was (80%), and religion cleans with toothpicks (18%), and those who clean with dental floss, percentage (6%) and (16%) clean with mouthwash (Rinsing).

## **I) Introduction**

Oral health is one of the important and complementary elements to the general health of the teeth. When it is in a good form, it is a source of human happiness and enjoyment of life, giving him a healthy appearance. Dental caries and gum infections are considered among the most common chronic diseases, where the healthy behavior of the individual and society plays an important role in their occurrence (Shafer:1983) (WHO: 2000) The World Health Organization has given special importance to oral and dental diseases and has communicated global attention to these diseases and giving oral and dental health services a priority in the public health programs of countries and working to carry out organized preventive programs to limit the spread of these diseases so it is necessary to Spreading culture and awareness in the community about how to maintain oral health and clean it well and correctly and by following correct and scientific cleaning methods. The formation of this bacterial plaque must be monitored, especially its causes, its formation and how to get rid of it and limit its presence in the mouth Early detection of gum diseases and supporting tissues, removal of calcareous deposits, 1994

Bacterial plaque control includes the use of mechanical means and chemical agents that impede plaque formation, and mechanical means include brushing the teeth and cleaning between the teeth using the correct oral cleaning tools (Harris, christen, 1991) .

## **II) Research Methods Materials:**

### **A) Study sample**

This study included a random sample that was selected from among the students at the Medical Technology College of Misurata. The volunteers were (50) male and female students of both sexes, in the age group (17-26). The clinical examination of these samples was performed by the specialist doctor inside the dental clinic. After distributing the questionnaire and conducting the practical part during the period from (2) to (3).

### **B) Data collection methods:**

1-Questionnaire.

2-Clinical examination of the teeth to determine the rate of accumulation of dental bacterial plaque (D.P.I) .

### **C) Questionnaire:**

The closed type of questionnaire was designed as a tool for collecting data from the study sample to reach scientific results. The purpose of the questionnaire was to assess the level of health awareness of oral and dental hygiene among the sample members and to obtain some information about the sample members such as gender, age and the correct methods of cleaning that they use.

### **D) Materials used in the clinical examination in the clinic:**

- Medical Gloves                      -Face mask
- Coat Lab code                      - Sydex solution
- Otolclave wet heat sterilizer

### **E) Methods:**

Clinical examination of the teeth to determine the rate of accumulation of dental bacterial plaque (D.P.I).

A tangible visual examination was conducted by a dentist (with the researchers present with him), where the sample sits on the dental chair in the clinic and the doctor examines his teeth and begins with the upper jaw. The lower jaw and the examined teeth are (central incisor, first molar) on both sides (right and left) In the upper and lower jaws, the results of the medical examination were recorded in the form, Detection of bacterial plaque to assess the extent of this plaque gathering in each of the study subjects.

### **F) Study objectives:**

- 1- Recognize the extent of interest in dental cleaning in the community.
- 2- Identify the methods used in cleaning teeth in the community.
- 3-Evaluation of these methods or the method used in cleaning and whether they were cleaning by correct scientific methods.
- 4- Identifying the effect of cleaning on the bacterial plaque in the study sample.

### **G) Results:**

The current study aimed to know the extent of the impact of dental cleaning methods on bacterial plaque, the descriptive and analytical approach was used through the use of the applied method that included the use of many methods and statistical treatments related to the subject of the study. The students at the College of Medical Technology in Misurata, who numbered (50) students, underwent a clinical examination by the dentist at the clinic affiliated with the Department of Dental Technology, and the results of the examination were recorded for each student.

### **H) Discussion:**

Through the results obtained through this study, it was found that the religious sample brushes their teeth once a day (52%), and those who brush their teeth twice a day (42%), and the lowest percentage was (6%), and they are among those who They clean their teeth three times a day, and this was consistent with the study (Al-Madani, 2007), where the study showed that the percentage of those who cleaned their teeth once a day (41%), and those who cleaned twice a day (21%), 4% cleaned three times a day, and these results also converge with the results of the study (Almas et al, 2000), in which the highest percentage was 50% for those who used the brush twice a day. The results of this study also showed that the average (DPI) for each sample was 3.5, and it was found that (8%) had zero (DPI) and (24%) had 1-2 (DPI), while the percentage of debt (16%) had 2-3 and debt They have or more, their percentage was (38%), and this was different with the study (Al-Faqih, 2012), where the study showed that (43.36%) had (DPI) zero, (49.7%) had (DPI) 1- and their religion (DPI) 2-3 Their percentage is (6.29%) and their percentage (0.7%) has a (DPI) 3-4

It has been noted that through the results of this study, the percentage of religious sample members suffering from bleeding in the gums was 56%, and the percentage of religious people suffering from halitosis was 20%, and this was close to the study (Almas et al 2000) where the study showed that religious people had bleedings 42% and 36.8% suffer from halitosis.

We also found out through this study that 62% have calcareous deposits around the necks of the teeth, 38% do not have calcareous deposits, and this corresponds to the study (Al-Madani, 2007) where the percentage of people with calcareous deposits was 57.4%, 42.6% not They have calcareous deposits.

It was also found through this study that the percentage of religious sample members have dental caries, 66% and 34% do not have dental caries, and this was not close to the study (Al-Madani, 2007) where it was found that 57.3% have dental caries, and 42.7% do not have Dental caries.

#### **I) Through recording the results and discussion, we conclude the following**

There is a good awareness of the importance of brushing teeth in the study sample, where the percentage of debt that they brush their teeth daily is 100%.

The methods used to brush the teeth were different in the study sample, and their percentage of religion was using the correct cleaning method 64%, and religion using the wrong method, their percentage was 32%

The culture of using toothbrushes and the dental floss is present, but it is not widespread enough, as the percentage of religion using the toothbrush was 28% and the dental floss was 16%.

We conclude that 20% of the sample suffer from halitosis.

We conclude that the percentage of yellowing of the teeth in the sample was 68%, which indicates the lack of quality of cleaning.

We conclude that the percentage of dental bacterial plaque was high, and this is evidence of the lack of quality cleaning.

#### **J) Recommendations:**

Through our study, which was about the correct methods of cleaning the teeth and their impact on the bacterial plaque (dental), we dealt with the correct cleaning methods and their impact on the bacterial plaque (dental) and we found that it is necessary to make some recommendations, which are:

The need to spread awareness in the community of the need to follow the correct methods of brushing teeth to improve the level of oral and dental health.

Spreading awareness of the need to pay attention to the periodic visit to the dentist every six months at least.

Responsible authorities or workers in the public health sector recommended the need to publish and print brochures in the field of assessment of how to take care of oral and dental health.

The study recommends conducting more studies and research as an information base to follow up and know the reasons that led to the formation of bacterial plaque and how to reduce it.

We recommend further studies to include larger samples in larger areas.

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