

**Tooth brushing practice among pupils in Elobied Locality, Sudan****Miaad MA Sirag<sup>1</sup>, Abd Elbasit EM Ahmed<sup>1</sup>, Mohammed A Elawad<sup>2</sup>**<sup>1</sup>Faculty of Public and Environmental Health, University of Khartoum, Sudan, <sup>2</sup>Health Sciences College at Al-Leith, Umm Al-Qura University, Saudi Arabia.**Address for Correspondence:**

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**ABSTRACT:**

A descriptive cross sectional school based study was conducted to study tooth brushing practice among pupils in Elobied Locality, Sudan. A sample of 398 pupils was determined using statistical formula. The study group was selected from classes proportionally then inside the class pupils were selected by systematic random sampling. Relevant data were collected using a pretested questionnaire. The majority of school pupils (99.5%) brush their teeth regularly. About 40.4% of the pupils said that the sound way is to brush teeth from all direction, while and 39.6% of them brush teeth from top to down and down to top. Most pupils (93.7%) use teeth brush and paste to brush their teeth. About 89.8% of the pupils use fluoridated teeth paste. Approximately 79.1% of the pupils brush their teeth in the morning and the evening. The study concluded that tooth brushing practice among the pupils was generally positive, however more awareness was needed.

**Keywords:** Practice, Pupils, School, Sudan, Tooth brushing.**INTRODUCTION**

Dental care starts from infancy to old age. Even before the emergence of the first tooth, the attitude on care for the oral cavity can highly affect a person's future appearance and health.<sup>1</sup> Oral hygiene is the practice of keeping the mouth and teeth clean to prevent dental problems, especially dental caries, gingivitis and bad breath.<sup>2</sup> Poor oral health has an impact on the physical, social, and psychological health and decreases the quality of life of school aged children.<sup>3</sup>

Tooth brushing practice is cleaning the teeth to remove microorganisms and food rocks away from teeth to prevent them from dental diseases, or to clean teeth and keep gum healthy from plaque and other dental diseases. This can be achieved with teeth brush and teeth paste with fluoride or with natural chewing sticks alternatively.<sup>4</sup>

Regular tooth brushing is considered an excellent preventive measure for control of many oral diseases<sup>5</sup>, on example way dental caries is prevented by tooth brushing with fluoridated toothpaste.<sup>6</sup>

**MATERIAL AND METHODS****Study area**

The study area (Elobied) is a big town located in Kordofan State, Western Sudan, between longitude 30° – 11° E and latitude 13.6° – 13.14° N. It is a dry arid area at the poor savanna zone. The weather is rainy in summer and cold in winter. There are 114 kindergartens, 124 governmental basic schools (58 boys, 57 girls and 9 co-education), 64 private schools (8 boys, 8 girls and 48 co-education), and twenty four governmental secondary schools in addition to Kordofan University.

**Study population**

The target group in this study is basic school's pupils with the total number of (63308) pupils (31478 boys, 31830 girls) distributed in 124 governmental schools (58 boys, 57 girls and 9 co-education) and 64 private schools (8 boys, 8 girls and 48 co-education).

**Sampling size and sample technique**

A sample size of 398 was determined using a statistical equation. The study group was

selected from classes proportionally then inside the class pupils were selected by systemic random sampling. The distribution of sample was done according to the weight among both boys and girls to obtain 199 pupils from each (boys weight = 49.7 and girls weight = 50.3) and then distributed over 6 schools which were selected randomly 3 governmental, 3 private and then the sample was distributed over the schools randomly.

**Data collection**

Data was collected using a pre-tested questionnaire directed to the pupils to obtain data regarding their knowledge, attitudes and practices (KAPs) towards teeth brushing.

**Data Analysis**

Data was analyzed using Statistical Package for Social Science (SPSS), version 19. The relation between different variables was checked using Chi-square test at (95%) confidence level.

**RESULTS**

Table 1 shows that (99.5%) of the pupils brushed their teeth. About 40.4% of the pupils said that the sound way is to brush teeth from all direction, while and 39.6% of them said is to brush teeth from top to down and down to top as shown in Table 2. Table 3 shows that 93.7% of the pupils who brushed their teeth used teeth brush and teeth paste. In table 4 about 89.8% of the pupils used fluoridated teeth paste. Table 5 shows that 79.1% of the pupils brushed their teeth in the morning and the evening.

**Table 1: Practicing of tooth brushing among pupils in Elobied Locality, Sudan (n =398).**

Practice	No.	%
Practice	396	99.5
Not practice	2	0.5
Total	398	100

**Table 2: Application of the sound ways of tooth brushing practice among pupils in Elobied Locality, Sudan (n =396).**

Application	No.	%
Top to Down to Top	37	9.3
Right to Left to Right	32	8.1
Down to Top to Down	12	3
1 and 4	155	39.2
All directions	160	40.4
Total	396	100

**Table 3: Tools used for brushing tooth among pupils in Elobied Locality, Sudan (n =396).**

Tools	No	%
Teeth brush	10	2.5
Teeth brush, paste	371	93.7
Natural chewing sticks	12	3.0
Finger	3	0.8
Total	396	100

**Table 4: Using paste with fluoride among pupils in Elobied Locality, Sudan (n=371).**

Using paste with fluoride	No	%
Use	333	89.8
Not use	38	10.2
Total	371	100

**Table 5: Period of tooth brushing among pupils in Elobied Locality, Sudan (n=396).**

Period	No.	%
Morning	59	14.9
Evening	6	1.5
Morning and evening	313	79.1
Others	18	4.5
Total	396	100

**DISCUSSION**

School children are vulnerable group for dental decay due to their behavior and eating habits, so it is essential to keep their teeth free from risks. Nowadays tooth brushing is considered as a daily human activity in most cultures

around the world. It is an important part of dental care routine.

Our findings revealed that most all of the pupils (99.5%) brushed their teeth but only 9.3% follow the correct way. In Saudi Arabia, around 67% students reported brushing their teeth daily.<sup>7</sup> Sofia and Riaz, found that about 69.2% brushed their teeth at least twice a day.<sup>2</sup> In a study conducted in China, 44.4% of the children brushed their teeth at least twice a day but only 17% used fluoridated toothpaste<sup>8</sup>, while in our study and about 89.8% out of 371 pupils used fluoridated paste. Fluoride toothpaste is a good tool to prevent dental decay worldwide; however the concentration varies between different types of toothpastes.

Majority of pupils use brush and paste to clean their teeth, while a small group of the pupils who brushed their teeth used natural chewing sticks (miswak) to brush their teeth. Almas and Taha reported that in Sudan people use natural chewing sticks mostly made from orange tree e.g. *Citrus sinensis* and arak tree (*Salvadora persica*).<sup>9</sup>

The best time to brush your teeth is in the morning before breakfast. However, it certainly isn't the only time you should brush throughout the day. The efficiency of oral hygiene depends on the frequency, precision and timing of daily tooth brushing, proper brushing technique and motivation for this task.<sup>10</sup> Most of pupils in the present study brush their teeth in the morning and evening.

## CONCLUSION

The study concluded that tooth brushing practice among the pupils was generally positive, however more awareness was needed.

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