

Differences In Teeth And Mouth Hygiene By Brushing Teeth Using A Mirror And Without A Mirror In Class V And VI Students Of SDN 12 Koto Tinggi

Anses Warman

Department of Dental Health, Poltekkes Kemenkes Padang

Email: drg.anseswarman@yahoo.com

Arnetty Arnetty

Department of Dental Health, Poltekkes Kemenkes Padang

Email: arnetty0724@gmail.com

Ika Ifitri

Department of Dental Health, Poltekkes Kemenkes Padang

Email: [Ika Ifitri@gmail.com](mailto:Ika>Ifitri@gmail.com)

Author correspondence: drg.anseswarman@yahoo.com*

Abstract. Dental and oral diseases that are commonly found in Indonesia are dental caries and swollen gums. Children aged 10-14 years in West Sumatra experienced dental caries by 41.47% and swollen gums by 11.30% caused by plaque. Plaque prevention is done by brushing your teeth thoroughly and regularly. Mirror As a tool for brushing teeth can see the entire surface of the teeth so that maximum accuracy and cleanliness are obtained. This study aims to determine the difference between brushing teeth using mirror aids and without mirror aids in grade V and VI students of SDN 12 Koto Tinggi. Research method "quasi-experiment". The sample of this study was 36 people with inclusion criteria. The results showed dental and oral hygiene, brushing teeth using mirror aids amounted to 22.2% bad criteria and 77.7% good criteria, while without using a mirror 77.2% bad criteria and 22.7% good criteria. The result of the statistical test p value = 0.01 (P value < 0.05) means that there is a significant difference between brushing your teeth using a mirror and mirrorless aids. The conclusion in this study is that it helps reduce plaque numbers compared to without using mirror aids.

Keywords : Mirror, Brushing Teeth, Hygiene Indeks, Elementary School Student

INTRODUCTION

Health is a human right and an element of well-being that must be realized in accordance with the ideals of the Indonesian nation as stated in Pancasila and the 1945. Constitution of the Republic of Indonesia. Health is a healthy state, both physically, mentally and spiritually as well as socially everyone to live productively socially and economically¹

Health is very important in human life and there are still many people who are not aware of the importance of maintaining health. Without sufficient health, a person will not be able to carry out daily activities properly. The quality of life will decrease if the body's health is not good. Health is a very important part of human survival, as well as dental and oral health³.

Dental and oral health is the state of health of the hard and soft tissues of the teeth and related elements in the oral cavity, which allows individuals to eat, speak, and interact socially

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* Anses Warman, drg.anseswarman@yahoo.com

without dysfunction, aesthetic disturbances and discomfort due to occlusive disease and tooth loss. able to live productively socially and economically ⁴.

Based on the 2013 National Basic Health Research, 25.9% of Indonesia's population has dental and oral health problems⁵. Meanwhile in West Sumatra it was 22.1% and in Agam Regency it was 21.2% ⁶.

According to data from the 2018 National Riskesdas, dental and oral health problems in the Indonesian population are 57.6%⁷, in West Sumatra by 58.5% while in Agam Regency by 44.1% ⁸.

Based on Riskesdas West Sumatra data in 2013, children aged 10-14 years had dental and oral health problems by 20.5% ⁶. Meanwhile, children aged 10-14 years in West Sumatra in 2018 had dental and oral health problems of 41.7%.⁸.

Dental and oral hygiene is a condition where the teeth in the oral cavity are clean and free from plaque and dirt such as debris, tartar and food scraps attached to the surface of the teeth⁹. Dirty teeth and mouth conditions can cause various dental and oral diseases such as diseases of the hard tissues of the teeth and their supporting tissues such as dental caries and gingivitis. This disease is common in Indonesian society and plaque plays an important role in the process of dental caries and gingivitis ¹⁰.

Plaque as a local cause of various cases of dental disease. Where plaque is composed of microorganisms that multiply in an intracellular matrix if someone ignores oral hygiene. Dental plaque cannot be cleaned by simply rinsing your mouth, but can only be completely cleaned by mechanical means, namely brushing your teeth ¹⁰.

Brushing teeth as a mechanical way to clean the teeth and mouth from food residue and debris attached to the teeth and can prevent plaque formation¹¹. Tools used for brushing teeth are toothbrush, toothpaste, mouthwash cup, mirror and towel ⁹.

The use of a mirror in brushing your teeth aims to see the tooth surface that is not clean and still has plaque⁹. The use of mirror media to brush teeth makes a person more thorough in brushing teeth because the reflection of the entire surface of the teeth is seen in the mirror so that the cleanliness of the tooth surface will be obtained and helps in reducing the dental plaque index and the use of mirrors is expected to be able to evaluate one's tooth brushing technique¹².

Elementary school-age children, namely grades V and VI which have an age range of 10-12 years, are very vulnerable to dental and oral health. Vulnerable age, namely the age of being

prone to dental and oral health because at this age there is a change of teeth, namely from milk teeth to permanent teeth to prevent dental and oral diseases, children of this age must be given special attention regarding dental and oral health so that the growth and development of teeth is maintained ⁹.

RESEARCH ,METHODS

The design of the quasi-experimental research was to provide a tool for brushing teeth in the form of a mirror to one group and the comparison group was not given a tool in the form of a mirror. This research was conducted at SDN 12 Koto Tinggi. The population and sample in this study were all students in grades V and VI of SDN 12 Koto Tinggi, totaling 49 people. This study uses saturated sampling.

RESULT AND DISCUSSION

1. Result

There were two treatment groups, 36 respondents each, namely the first group brushing their teeth using a mirror and the second group brushing their teeth without a mirror. Frequency distribution of dental and oral hygiene:

Table 1. Dental and oral hygiene brushing teeth using a mirror

No.	HI Criteria	Using a Mirror	
		f	%
1.	Bad	4	22,2
2.	Good	14	77,7
Total		18	100

From table 1 showed that dental and oral hygiene (hygiene index) brushing teeth using mirror aids with bad criteria was only 22.2% while 77.7% with good criteria.

Table 2. Dental and oral hygiene brushing teeth without using a mirror

No.	HI Criteria	Without Mirror	
		f	%
1.	Bad	14	77,2
2.	Good	4	27,2
Total		18	100

Table 2 shows that oral hygiene (hygiene index) by brushing teeth without using a mirror is 77.7% with bad criteria and 22.2% with good criteria.

Table 3. Statistical test results for brushing teeth using mirror aids and without mirror aids

Variabel		N	Mean	P
Hygiene indeks	With Mirror	18	86,44	0,001
	Without Mirror	18	73,67	

(Uji independent sample z-test . α 0.05)

Table 3 shows that the average for the group that brushed their teeth using a mirror was 86.44, while the average for the group that brushed their teeth without using a mirror was 73.67.

This result is proven by the results of the statistical test "Independent T-Test" showing that the p value is $0.001 < 0.05$ then H_0 is rejected and H_a is accepted, meaning that there is a significant difference between dental and oral hygiene in children who brush their teeth using mirror aids and without a mirror for students in grades V and VI at SDN 12 Koto Tinggi.

2. Discussion

Based on the table presented in Table 1, there were respondents with good criteria. This was because all students had received counseling on how to brush their teeth properly and correctly using a combination technique, and the benefits of mirrors as a tool for brushing their teeth from researchers before conducting research.

While brushing their teeth in the field, it was seen that the 14 students used the combination brushing technique correctly, and they saw the surface of the teeth being brushed in the mirror.

The results of this study are supported by the theory that brushing your teeth in front of a mirror will train psychomotor, the use of mirror media to brush your teeth makes a person more thorough in brushing their teeth because the reflection of the entire surface of the teeth is seen in the mirror, so that a clean tooth surface will be obtained and helps in reducing the plaque index teeth and the use of mirrors are expected to evaluate a person's teeth brushing technique ¹².

Table 2 shows that there are 14 people who have bad dental and oral hygiene. This happens because they are not serious about brushing their teeth and it is still difficult to apply the combined tooth brushing technique, because they are still using the old tooth brushing technique. They also don't brush their teeth using a mirror, so the dental and oral hygiene they get is not optimal and there is still a lot of plaque left behind.

From tabel 3 shows that the group that brushed their teeth using a mirror had an average high dental and oral hygiene compared to the group that brushed their teeth without using a mirror. The results of this study are in line with the theory that a mirror is an object that can reflect

something in the environment. Psychologically, the mirror has a major role because it can provide self-image and reactions of fear and shame decrease when looking at self-image in the mirror. Brushing your teeth in front of the mirror will train psychomotor¹³.

Tooth brushing exercises can be done in front of a mirror so that children can see themselves while brushing their teeth and help children to find out which parts are not clean and where brushing techniques are not appropriate, so that children can be encouraged to clean the parts of the teeth that are still dirty more thoroughly and can correct wrong steps. Brushing your teeth in front of a mirror and using the right technique can reduce debris on your teeth ¹².

It was concluded that the use of mirror media as a tool for brushing teeth makes us more thorough because the reflection of the entire tooth surface is visible in the mirror so that the cleanliness of the tooth surface is obtained and helps reduce the amount of plaque.

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