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The Relationship of Knowledge of How to Brush Teeth with Ohi-S in Baiturrahman Middle School Students, Surabaya

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ABSTRACT

Background: Dental health affects a person's overall health, and oral hygiene is a component of overall health. Food particles that cannot be removed effectively by brushing your teeth may be difficult to remove, leading to tooth decay and are the main source of this problem. **Problem:** High OHI-S scores in Baiturrahman Middle School students in Surabaya. **Objective:** To obtain a relationship between knowledge of how to brush teeth and OHI-S in Baiturrahman Middle School students, Surabaya. **Research Method:** This study used a questionnaire and OHI-S examination. **Research Type:** Analytical research with a cross sectional design with a total of 42 students as respondents. **Data Analysis:** Using data tests, especially the Spearman correlation test. **Research Results:** The results of the study conducted showed no relationship between knowledge of how to brush teeth and OHI-S in Baiturrahman Middle School students, Surabaya.

Keywords: Knowledge, How to Brush Teeth, OHI-S, Students

INTRODUCTION

Oral and dental hygiene is very important for a person's overall health. If food particles are not brushed away properly, cleaning will become difficult and cavities may occur. So that information is revealed about a number of diseases related to oral and dental health (Nugroho et al., 2019).

Brushing teeth is very necessary for children to clean their teeth as part of their routine. Keeping your teeth clean requires the ability to clean them thoroughly and effectively. The development of bacteria that can endanger oral health and plaque buildup on teeth can be avoided by using the right toothpaste (Santi & Khamimah, 2019).

Knowledge influences attitudes and behavior related to health. A person's actions are largely shaped by his knowledge or cognitive domain (over behavior). Someone with higher education or knowledge will more easily understand new information about oral health than

someone with lower education (Adam & Ratuela, 2022).

2018 RISKESDAS data regarding dental and oral health shows that 10.2% of the community received facilities from dental health workers and 57.6% of the community had dental and oral health problems. According to data from the 2018 Indonesian Basic Health Research, as many as 2.8% of people brush their teeth properly twice a day, namely morning and evening, and 94.7% of people practice brushing their teeth every day (Alif et al., 2021).

Based on the results of the examination in class VIII of Baiturrahman Middle School, Surabaya, OHI-S data results were obtained with an average of 3.1 (poor category). This indicates that the cleanliness of the teeth and mouth of class VIII students at Baiturrahman Middle School, Surabaya is in the poor category.

Efforts to avoid or at least minimize the formation of debris, plaque and tartar can be achieved by avoiding oral disease

and practicing good dental care. It is very easy to maintain dental hygiene, just clean your teeth. Brushing your teeth is an important dental hygiene routine that helps keep your teeth free of food particles and bacteria (Alif et al., 2021).

This study aims to determine the relationship between knowledge of how to brush teeth and OHI-S in Baiturrahman Middle School students, Surabaya.

RESEARCH METHOD

This research has received approval from the Health Research Ethics Committee of the Surabaya Health Polytechnic No. EA/2418/KEPK-Poltekkes_Sby/V/2024. This research uses analytical methodology with a cross sectional design. The population in this study was 45 students from Baiturrahman Middle School, Surabaya. The sampling technique used the Slovin formula for 42 students. In this study, the instrument used was a questionnaire sheet to determine students' knowledge of how to brush their teeth and to assess the level of oral hygiene using the OHI-S examination and recorded on the OHI-S examination sheet. Analysis of the relationship between knowledge of how to brush teeth and OHI-S in Baiturrahman Middle School students in Surabaya using the SPSS data processing application using the Spearman Correlation Test with a significance level of $p > 0,05$.

RESULT AND DISCUSSION

Tabel 1. Criteria for Assessing Students Knowledge of How to Brush Their Teeth

No	Category	Frequency (n)	Presentase (%)
1.	Good	5	12%
2.	Enough	22	52,3%
3.	Less	15	35,7%
Total		42	100%

From the data in table 1, it can be concluded that the highest number of students' knowledge meets sufficient criteria with a percentage of 52.4%. What was obtained from the study carried out was

in line with the study conducted by (Ekasari *et al.*, 2022) which showed that students' knowledge of how to brush their teeth was included in the sufficient category. This research states that the cause of the lack of knowledge on how to brush your teeth is a lack of education regarding how to brush your teeth properly.

Tabel 2. Criteria for Students Dental and Oral Hygiene Status

No.	Category	Frequency (n)	Presentase (%)
1.	Good	0	0%
2.	Currently	17	40,4%
3.	Bad	25	59,6%
Total		42	100%

From the data in table 2, it can be concluded that OHI-S has the mostbad criteria with a percentage of 59.6%. The findings of the study carried out are consistent with the study carried out (Nurhalisah, 2021) where the majority of students in grades 4, 5 and 6 at SD Nurul Muttahid Makassar had poor OHI-S, according to the results of oral hygiene examinations. The majority of respondents had poor oral conditions.

Tabel 3. Relationship Between Knowledge of How to Brush Teeth and OHI-S

Variable	Correlation Coefficient	Asymp Sig.
Pengetahuan	1.000	
OHI-S	-0,138	0,384

Based on the results of calculations with SPSS using Spearman Rank data analysis, the data showed that there was no correlation between the two variables, namely knowledge of how to brush teeth with OHI-S in Baiturrahman Middle School students, Surabaya with a significance value from the table, namely 0.384 where ($p > 0.05$) then ($sig = 0.384 > 0.05$). This means that 0.384 is greater than the significant value, so H1 is rejected and H0 is accepted. This means that there is no relationship between knowledge of how to

brush teeth and OHI-S in Baiturrahman Middle School students, Surabaya.

The study carried out is in line with the study (Silfia *et al.*, 2019), showing that there is no relationship between the level of knowledge and maintaining dental health. Even though children have extensive knowledge, the study concluded that there was no relationship because the knowledge was limited to understanding and was not applied to behavior. And there are also several factors besides that that can impact a person's knowledge and make it less applicable to daily tasks.

Four things influence oral health status (OHI-S), according to Blum's theory. These variables include genetics, behavior, environment, and health care. The biggest factor that influences dental health is the environment. A person's behavior has a significant impact on their health, because behavior is another component that has an impact on the position of dental and oral health.

Apart from knowledge factors, the high value of dental and oral hygiene at Baiturrahman Middle School Surabaya could occur due to external factors, for example parents, teachers and health workers who do not guide and provide health education to students regarding the importance of maintaining dental and oral hygiene. Even though the knowledge that students have is sufficient, students have not implemented attitudes well so that student behavior related to caring for dental and oral health is lacking and has an impact on students' dental health status. The lack of promotional efforts from health workers can also have an impact on the level of dental and oral health of students. Apart from that, the lack of supporting factors such as infrastructure that can facilitate students in maintaining the prevention of dental disease and oral health can also have an impact on students' behavior in maintaining healthy teeth and mouth.

CONCLUSION AND RECOMMENDATION

After carrying out a study on the relationship between knowledge of how to brush teeth and OHI-S among Baiturrahman Middle School students in Surabaya, it can be concluded as follows:

1. It is known that the majority of respondents at Baiturrahman Middle School Surabaya regarding the knowledge of how to brush teeth among students at Baiturrahman Middle School Surabaya is in sufficient criteria.
2. It is known that the majority of respondents at Baiturrahman Middle School Surabaya regarding the status of dental and oral hygiene (OHI-S) are in the poor category.
3. There is no relationship between knowledge of how to brush teeth and OHI-S in Baiturrahman Middle School students, Surabaya.

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