



**THE EFFECT OF DENTAL HEALTH EDUCATION USING THE
DEMONSTRATION METHOD ON THE BEHAVIOR OF DENTAL
BRUSHING IN CLASS V SCHOOL AGE CHILDREN AT SDN 1
PAGAR AIR DISTRICT WANTS TO JAYA DISTRICT
BIG ACEH**

Dea Pradia Asri, Reca

*Student of the Department of Dental Health, Jl. Soekarno Hatta, Integrated
Campus of Poltekkes Aceh Indonesia*

Email Contributors: dea.pradiasri@gmail.com

Received: Filled Out by the Editor

Accepted: Filled Out by the Editor

Published: Filled Out by the Editor

Abstract

Dental and oral health counseling to elementary school students is one of the efforts to improve the degree of dental health in children in promotive and preventive aspects. The selection of demonstration methods in dental and oral health education supports increasing children's understanding, by practicing directly how to brush their teeth correctly. From the results of interviews with 10 students, it is known that 7 students do not know how to brush their teeth properly and correctly. This study aims to determine the effect of dental health education using the demonstration method on tooth brushing behavior in fifth grade school-aged children at SDN 1 Pagar Air, Want Jaya District, Aceh Besar District. The type of research used in this study is a Quasi Experiment using a pretest and posttest design which was carried out on January 21-22 2022 at SDN 1 Pagar Air, Aceh Besar District. The sampling technique was Total Sampling, which consisted of 60 students. Analysis of the data in this study is quantitative data using parametric statistical test Paired Sample T-test. The results showed that there was an effect of dental health education using the demonstration method on tooth brushing behavior in fifth grade school-aged children at SDN 1 Pagar Air with a significant value of $P = p=0.000$. It can be concluded that there is an effect of dental health education using the demonstration method on the behavior of brushing teeth in fifth grade school-aged children at SDN 1 Pagar Air. It is suggested to the students of SDN 1 Pagar Air, Sub-District of Want Jaya to apply good and correct brushing techniques.

reca.zulkarnain@yahoo.com

Keywords: *Dental Health Education, Demonstration Methods, Tooth Brushing Behavior.*

A. Introduction

Health education is one of the important efforts to demonstrate health, especially for children who have low levels of dental and oral health and lack of skills in brushing teeth, it is hoped that they can change behavior from those that are detrimental to health and norms that are in accordance with health (Sekar et al. 2011).

Efforts to maintain dental and oral health and foster dental health, especially for school group children, need special attention because at this age children are undergoing a process of growth and development. The state of the previous teeth will affect the development of dental health in adulthood. Through the extension program, it is expected to increase knowledge and raise awareness of the importance of maintaining dental and oral health and to be able to actively participate in improving self-care efforts (Prasko et al, 2016).

Dental and oral health counseling to elementary school students is one of the efforts to improve the degree of dental health in children in promotive and preventive aspects. The selection of demonstration methods in dental and oral health education supports increasing children's understanding, by practicing directly how to brush their teeth correctly (Ilyas et al, 2012).

Elementary school age is an ideal time to train a child's motor skills, including brushing teeth. The potential for brushing teeth properly and correctly is an important factor for maintaining oral and dental health (Situmorang, 2018).

For children, how to brush their teeth needs to be given an example of a good model and with as simple a technique as possible. The delivery of dental and oral health education to children must be made as attractive as possible, including through attractive counseling without compromising the content of education, direct demonstrations, audiovisual programs, or through controlled mass toothbrushing (Situmorang, 2018).

B. Result and Discussion

1. Result

This type of research is a Quasi Experimental Design with a pre-test and post-test only group design and the research subjects are all fifth grade students of SDN 1 Pagar Air, Want Jaya District, Aceh Besar Regency, totaling 60 students. The sampling technique in this study is the total population. The intervention variable in this study was dental health education using the demonstration method. The independent variable

(influence) is the level of knowledge, attitude, and act of brushing teeth before the intervention. While the dependent variable (influenced) is the level of knowledge, attitude, and act of brushing teeth after the intervention. The ethical considerations of this research are to explain to students about the objectives and procedures of the research. Research respondents who are willing are welcome to sign the informed consent. Respondents who are not willing have the right to refuse and resign. The data obtained from the respondents are only used for research purposes.

The research instrument used a questionnaire. Analysis of the data in this study is quantitative data using parametric statistical test Paired Sample T-test. Measurement of the data started from the pretest to determine the level of knowledge, attitudes, and actions of students before the intervention. Followed by intervention (dental health education using demonstration method) for 45 minutes, after that a post test was carried out. Data analysis used Statistics Program for Social Science (SPSS), with hypothesis testing based on the significance level of $p < 0.05$.

1. General Data

Table 1.1
Frequency Distribution by Gender of Class V SDN 1 Students
Water Fence, Want Jaya District, Aceh Besar District
2022

No	Gender	Frequency	Percentage(%)
1	Male	26	43,3
2	Female	34	56,7
total		60	100

Based on Table 1.1, it is known that the gender of the respondents is the same as the number of men and women, amounting to 34 (56.7%) respondents.

2. Univariate Analysis

- a. The Effect of Dental Health Education Using the Demonstration Method on Knowledge about Brushing Teeth

Table 1.2
Frequency Distribution of Knowledge about Brushing Teeth

2022

No	Category	Before	Percentage	After	Percentage
1	Good	17	28,3	60	100
2	Not good	43	71,7	0	0
Total		60	100	60	100

Based on table 1.2, it can be seen that before dental health education was given the level of knowledge was in the poor category, namely 43 (71.7%) respondents. And after being given dental health education, the level of knowledge was in the good category, as many as 60 (100%) respondents.

b. The Effect of Dental Health Education Using the Demonstration Method on Attitudes about Brushing Teeth

Table 1.3
Frequency Distribution of Attitudes about Brushing Teeth
2022

No	Category	Before	Percentage	After	Percentage
1	Good	21	35	60	100
2	Not good	39	65	0	0
Total		60	100	60	100

Based on table 1.3, it can be seen that before dental health education was given the attitude was in the unfavorable category as many as 39 (65%) respondents. And after being given dental health education the attitude was in the good category, as many as 60 (100%) respondents.

c. Pengaruh Pendidikan Kesehatan Gigi Menggunakan Metode Demonstrasi terhadap Tindakan tentang Menggosok Gigi

Tabel 1.4
Distribusi Frekuensi terhadap Tindakan tentang Menggosok Gigi
Tahun 2022

No	Category	Before	Percentage	After	Percentage
1	Good	25	41,7	60	100
2	Not good	35	58,3	0	0
Total		60	100	60	100

Based on table 1.4, it can be seen that before the dental health education was given the action was in the poor category, namely as many as 35 (58.3%) respondents. And after being given dental health education the attitude was in the good category, as many as 60 (100%) respondents.

3. Bivariate Analysis

Table 1.5
Frequency Distribution of the Effect of Dental Health Education Using the Demonstration Method on Brushing Behavior in 2022

No	Effect of Dental Health Education	Effect of Dental Health Education	N	Mean	Std Deviation	P Value
1	Before	knowledge	60	54.6667	11.99812	0,000
	After			93.1667	7.24666	
2	Before	attitude	60	54.8333	10.49482	0,000
	After			94.5000	6.74600	
3	Before	Action	60	56.3333	11.19423	0,000
	After			92.8333	7.15250	

Based on table 1.5, it is known that the results of the average analysis before being given dental health education with the demonstration method obtained an average value of knowledge of 54.6667, attitudes of 54.8333, and actions of 56.3333. After being given dental health education with the demonstration method, the average value increased, namely knowledge of 93.1667, attitude of 94.5000, and action of 92.8333. The results of the Paired Sample T-Test statistic test showed that $p = 0.000$

which indicates that the smaller value of $\alpha = 0.05$, which means that the provision of dental health education with the demonstration method has an effect on knowledge, attitudes, and acts of brushing teeth.

2. Discussion

The statistical results of the Paired Sample T-Test test were obtained that $p = 0.000$ ($\alpha < 0.05$) meaning that there was a significant effect of tooth brushing behavior before and before being given dental health education using the demonstration method. This means that dental and oral health education using the demonstration method can improve students' knowledge, attitudes, and actions towards brushing their teeth. The author assumes that the use of the demonstration method is successful in disseminating material about tooth brushing behavior, by using dental phantom props which are objects that are real in shape and resemble anatomy, so that they can better absorb and understand the information provided by the instructor.

The difference in the results of rubbing behavior can be seen from the respondents before being given dental health education using the demonstration method in the poor category, namely 43 (71.7%) respondents, after being given dental health education using the demonstration method, they were in the good category as many as 60 (100%) respondents. Judging from the attitude of the respondents before being given dental health education using the demonstration method, 39 (65%) respondents were in the poor category, after being given dental health education using the demonstration method, they were in the good category as many as 60 (100%) respondents. Likewise, the action before dental health education using the demonstration method was in the unfavorable category as many as 35 (58.3%) respondents, giving the demonstration method of action increased in the good category as many as 60 (100%) respondents. Health education is the number of experiences that affect habits, attitudes and knowledge that have to do with health, society, and the nation. For the purpose of health education, health education needs to be carried out as attractively as possible by using various health education methods so that it is not monotonous and boring, one of the methods that can be done is a demo (Nurhajilah, et al, 2018).

The demonstration method is a teaching method by demonstrating items, events, rules, and sequences of carrying out an activity either directly or through users of teaching media that are relevant to the subject or material being presented (Syah, 2013). The demonstration method is a method of presenting lessons by demonstrating to students about a certain process, situation, or object, either actual or just an imitation (Mulyati, 2021).

This research is in line with research conducted by (Nurhajilah, et al, 2018), on 17 students of Mujahidin 2 Kindergarten in East Pontianak. The data from the Paired t-test results obtained that p for the intervention group (0.000) with a mean (-6.059) and standard deviation (± 2.904) and p for the control group (0.002) with a mean (-1.118) and standard deviation (± 1.219). . The results of the independent sample test obtained the results of p (0.000). The effect of health education demonstration method on changes in knowledge of dental and oral cleaning practices for children aged 4-5 years in Mujahidin 2 Kindergarten, East Pontianak. So that the demonstration method can be used as a health education method for cleaning teeth and mouth given to children aged 4-5 years so that they can behave well in cleaning teeth and mouth.

The results of the study (Maftuhatin, 2017), which was conducted at SD 02 Cireunde, South Tangerang on 27 children, the respondent's actions in brushing their teeth properly before being given a dental health education package in this study had an average value of 47.53, while after being given a dental health education package, the average score was 47.53. dental health education increased to 78.84. The minimum value between pretest and posttest increased by 38, while the maximum value between pretest and posttest did not increase. The effect of the dental health education package on the act of brushing teeth has a significant value of 0.000, meaning that at an alpha value of 5% there is a significant difference in the average score before and after the intervention.

Based on research (Hestiani, 2017), it shows that there is an increase in action after a demonstration (toothbrushing). Seen at the time of posttest there are 53 respondents who still act well. In this study, it was shown that the demonstration method (toothbrush) was very proven to have an effect on increasing the respondent's actions. Where the data

obtained by 14 respondents before being given a demonstration (toothbrush) had bad actions and after being given a demonstration 53 respondents changed their actions to be good. In this demonstration method, it is designed as a good approach model to be applied in making behavioral changes in elementary school students to clarify students' understanding of the importance of preventing dental caries.

C. Conclusion

Based on the results of research and discussion, the following conclusions can be drawn:

1. The level of knowledge of students before being given dental health education using the demonstration method had an average value of 54.6667 and after being given dental health education it increased by 93.1667. The effect of dental health education using the demonstration method on knowledge has a significant value of 0.000.
2. The level of student attitudes before being given dental health education using the demonstration method had an average value of 54.8333 and after being given dental health education it increased by 94.500000. The effect of dental health education using the demonstration method on knowledge has a significant value of 0.000.
3. The level of student action before being given dental health education using the demonstration method had an average value of 56.3333 and after being given dental health education it increased by 92.8333. The effect of dental health education using the demonstration method on knowledge has a significant value of 0.000.

Acknowledgment

If any, acknowledgment can be stated here. This section displays authors' appreciation to sponsors, fund donors, resource persons, or parties who have an important role in conducting research.

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