
THE EFFECT OF COUNSELLING WITH DEMONSTRATION METHODS ON TOOTH BRUSHING SKILLS IN STUDENTS SDN 1 LAMPEUNEURUT ACEH BESAR

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ABSTRACT

Good and correct tooth brushing skills in children are very necessary in maintaining oral hygiene as an effort to prevent oral health problems. The biggest dental problems occur in children because they do not know how to maintain oral health. Brushing teeth is an activity to clean teeth from food debris, plaque and bacteria. The purpose of this study was to determine the effect of counselling with the demonstration method on tooth brushing skills in students of SDN 1 Lampeuneurut Aceh Besar. The research method used is quantitative research method using pre-experimental design type one group pretest-posttest method. The population in this study were all students of class IV and V SDN 1 Lampeuneurut Aceh Besar. The sample in this study amounted to 50 respondents. The analysis conducted was univariate and bivariate analysis with T-Test statistical test. The results of the research before and after (pre-post) using the Paired Sample T-Test Test obtained a p value of 0.001 or $p < 0.05$. In the pre-test results, respondents who had good brushing skills were 12 people (24%), and respondents who had poor brushing skills were 38 (76%). After being given counselling with the demonstration method, it was found that there was a significant increase in tooth brushing skills in SDN 1 Lampeuneurut Aceh Besar students, namely most respondents had good tooth brushing skills as many as 37 people (74%) and those who had poor tooth brushing skills were 13 people (26%). Based on the results of the study it can be concluded that there is an effect of counselling with the demonstration method on tooth brushing skills in students of SDN 1 Lampeuneurut Aceh Besar. It is recommended to students to maintain their oral health and to other related parties in order to provide counselling and information about maintaining proper dental health in school children.

INTRODUCTION

The oral health of the Indonesian people is still something that needs serious attention from health workers, both dentists and dental nurses. The emergence of oral health problems in the community is one of them caused by behavioural factors or attitudes towards ignoring dental and oral hygiene. This is based on a lack of knowledge of the importance of maintaining oral health (1)

Basically, an educational process that involves more senses will be easier for individuals to accept and remember. Providing oral health education will be more effective and optimal by using the right methods and media (2).

The method used in health promotion or counselling is one of the factors that influence the achievement of optimal results (Notoatmodjo, 2007). In addition, one of the objectives of health education is to create changes in individual behaviour in fostering and maintaining healthy behaviour, as well as playing an active role in efforts to achieve optimal health status (3).

There are many methods that can be used in learning and improving oral hygiene skills in school-age children including the demonstration method. The demonstration method is defined as a way of presenting teaching by using an artificial situation to illustrate the real situation in order to

gain an understanding of the nature of a particular concept, principle, or skill (4).

Dental caries can have an impact on the quality of life of children, children will feel uncomfortable, pain in the teeth, infection, eating disorders, sleep disturbances, even many children are hospitalised when dental caries disease gets worse so that it can have an impact on children's learning because they cannot attend school. Dental caries in children must be prevented as early as possible. Prevention that can be done is brushing teeth regularly twice a day after breakfast and at night before bed (5).

Brushing teeth is the activity of cleaning teeth from food debris, plaque and bacteria. The habit of brushing teeth is the behaviour of a person cleaning teeth from food debris that is carried out continuously. Brushing teeth will affect the good and bad oral hygiene and health, besides that it will also affect the rate of dental caries. The right time when brushing teeth also needs to be considered (6).

Good habits in brushing teeth, namely regularly 2 times a day after breakfast and at night before bed, can prevent dental caries. Brushing your teeth after breakfast can reduce the likelihood of mechanical erosion that will occur on demineralised tooth surfaces, while brushing your teeth before bed to clean the remaining plaque because during sleep the bufer effect will be reduced due to reduced salivary flow (7).

The current high rate of oral and dental disease is strongly influenced by several factors, one of which is the behavioural factors of people who are not aware of the importance of maintaining oral and dental health. It can be seen that 22.8% of the Indonesian population do not brush their teeth and of the 77.2% who brush their teeth, only 8.1% brush their teeth on time (8).

The number of cases of oral health in Indonesia in children aged 5-9 years is 54.0%, and Aceh Province shows a population prevalence of dental and oral problems of 56%. Meanwhile, the prevalence of active caries in the Indonesian population in 2018 was 45.3% and in Aceh Province it was 47% (9).

Riskesdas data (2018) also stated that 57.6% of the Indonesian population had oral problems during the last 12 months, but only

10.2% received treatment by dental medical personnel. The largest proportion of dental problems in Indonesia is damaged/perforated/diseased teeth (45.3%). Meanwhile, the majority of oral health problems experienced by the Indonesian population are swollen gums and boils (abscesses) at 14%. Based on age group, the largest proportion with oral problems is the 5-9 years age group (67.3%) with 14.6% having received treatment by dental medical personnel. Meanwhile, the lowest proportion with oral problems was aged 3-4 years (41.1%) with 4.3% having received treatment by dental medical personnel.

The results of an initial survey with 10 elementary school children in grades IV and V at SD Negeri 1 Lampeuneurut Aceh Besar, as an initial research sample. From the initial survey using the pre-test check list sheet, it was found that 7 out of 10 children did not understand the steps of brushing their teeth properly, it can be seen that almost 80% of children from class IV do not know the steps of brushing their teeth properly so it is very necessary to provide counseling with the demonstration method on tooth brushing skills in students at SDN 1 Lampeunerut Aceh Besar.

RESEARCH METHODS

This type of research is comparative quantitative, where the data obtained from numbers that aim to determine the effectiveness or comparison between two or more variables, namely the effectiveness before and after counseling through the demonstration method on tooth brushing behaviour with good and correct techniques in Class IV and V students of SDN 1 Lampeuneurut Aceh Besar. This study used a pre-experimental design type one group pretest-posttest method. The use of one group pretest-posttest design can be adjusted to the objectives to be achieved (Gahayu, 2015). The sample in this study was taken by total sampling / total population technique with inclusion and exclusion criteria. The sample in this study totalled 50 respondents. Researchers made observations with the same checklist sheet to the respondent group twice. The time interval between the first test (pretest) and the second test (posttest) between 15-30 days is sufficient. In this study, the time interval used between the

initial observation and the final observation was 15 days to measure the level of tooth brushing skills. To test the significance of the difference in the influence of two variables before and after the intervention, namely with the T-Test statistical test, where to see the difference before and after the intervention is used Paired-Sample T-Test.

Research Results

The results of research and data processing can be presented in the form of tables and narratives as follows:

Age respondent the results of research and data processing can be presented in the form of tables and narratives as follows:

Table 1. Frequency Distribution of Respondents Based on Student Age Grouping

NO	Student Age	Frequency	Percentage
1	10	1	32,0
2	11	3	68,0
	21	5	100

The table above shows that the most respondents were in the age category of 11 years as many as 34 people (68%) and the age category of 10 years as many as 16 people (32.0%).

Data Analysis

Table 2 Frequency Distribution of Respondents' Level of Tooth Brushing Skills Pre-Test Before Counselling with Demonstration Method

Level	Pre-Test
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Table 4 Comparison Test Results of Pre-Test and Post-Test Tooth Brushing Skills Post-Test on Counselling with Demonstration Method (Paired sample t test)

Level Skills Tooth Brushing	Demonstration Method				p value
	Pre-Test		Post-Test		
	Frequency	Percentage	Frequency	Percentage	
Good	12	24%	37	74%	0,001
Less	38	76%	13	26 %	
Total	50	100%	50	100%	

Skills Tooth Brushing	Demonstration Method	
	Frequency	Percentage
Good	12	24%
Less	38	76%
Total	50	100%

The results showed that the respondents before being given counselling with the demonstration method obtained data that respondents who had good skills were 12 people (24%), and respondents who had poor skills were 38 (76%).

Table 3 Frequency Distribution of Respondents' Level of Tooth Brushing Skills Post-Test After Counselling with Demonstration Method.

Level Skills Tooth Brushing	Post-Test	
	Demonstration Method	
	Frequency	Percentage
Good	37	74%
Less	13	26%
Total	50	100%

The results showed that the respondents after being given counselling with the demonstration method obtained data that respondents who had good skills were 37 people (74%), and respondents who had poor skills were 13 (26%).

To determine the effect of the independent variable (counselling with demonstration methods) with the dependent variable (tooth brushing skills) indicated by a p value <0.05 . In this study, bivariate analysis used the Paired-Sample T-Test test, which is to see differences before and after counseling with the demonstration method. The results of research before and after (pre-post) using the Paired Sample T-Test Test obtained a p value of 0.001 or $p < 0.05$. After being given counselling with the demonstration method, it was found that there was a significant increase in the ability to brush teeth in students of SDN 1 Lampeuneurut Aceh Besar.

DISCUSSION

Based on the results of research and data analysis showed that before counseling with the demonstration method was carried out, respondents who had skills towards tooth brushing practices with poor scores were 38 people (76%), and respondents who had good tooth brushing skills were 12 people (24%). After being given counselling with the demonstration method, the results showed that there was a significant increase in the skills of tooth brushing practices in students at SDN 1 Lampeuneurut Aceh Besar, namely most respondents had good tooth brushing skills as many as 37 people (74%) and those who had poor tooth brushing skills were 13 people (26%). The results of statistical tests using the Paired Sample T-Test Test obtained a p value of 0.001 or $p < 0.05$. This shows that there is a significant effect of counselling with the demonstration method on tooth brushing skills in students of SDN 1 Lampeunerut Aceh Besar.

This is also in line with research conducted (Ningsih et al., 2021), that providing health counselling using the demonstration method is an effective way to increase students' knowledge about proper tooth brushing. The statistical results showed an influence between the provision of proper tooth brushing counselling on increasing student knowledge at Sedangmulyo 03 Kedungmudu Elementary School.

Media and methods are things used by educators in delivering educational or teaching materials that have an important role. Health education media are also referred to as teaching aids because they function to help and demonstrate something in the education or

teaching process. The existence of teaching aids is intended to mobilise as many senses as possible on an object so as to facilitate understanding. A person or community in the educational process can gain experience/knowledge through various kinds of educational aids. But each tool has a different intensity in helping a person's perception (10).

A demonstration is an imitation of something real, a state of affairs. The act of demonstrating something generally represents a key characteristic or behaviour of physical or abstract systems. Demonstrations learn or predict what will happen by mimicking, or modelling, the system being studied and then conducting numerical experiments using computers (11).

Based on data from several studies, it shows that good knowledge does not always result in good actions, which is very often the case in school-age children. Inappropriate information delivery processes can affect children's behaviour in daily activities such as brushing their teeth. The demonstration method is one way to provide information more effectively. The demonstration method can reduce errors compared to reading or listening because clear perceptions are obtained from observation and the process of receiving the target of the counselling material will be more memorable (12). Children will get a more perfect understanding by demonstrating and showing the target about a process with the correct procedure, for example by showing the practice of brushing teeth properly and correctly (13).

This is also in accordance with Edgar Dale's Cone Theory where in the educational process, the original object has the highest intensity to perceive educational / teaching materials. According to this theory, there are several kinds of media that can be used in the educational process. In Edgar Dale's cone, it provides a visual illustration that the more abstract a learning experience is, the less understanding will be obtained. Conversely, if the learning experience is more real, the greater the understanding obtained. In this study, the simulation method is included in the demonstration category, which in Edgar Dale's cone theory is in order 8 of 11 cone theory sequences. This shows that the simulation method with demonstration has a high intensity to perceive educational/traching materials (13).

From the various statements above, it can be observed that oral hygiene counselling plays an important role in improving children's skills on how to brush their teeth. Dental health education is one of the dental health programmes with the aim of tackling dental health problems in Indonesia (14). Health counselling is a health education activity carried out by spreading messages and instilling beliefs. In this case, an effective method is to conduct a demonstration. The demonstration method can reduce errors compared to reading or listening and will be more memorable so as to get a more perfect understanding, namely by demonstrating and showing the target about a process with the correct procedure, for example by showing how to brush your teeth properly and correctly (15).

Abilities and skills play a major role in individual behaviour and performance. Skills are task-related aptitudes that a person possesses and utilises at the right time (16). Brushing teeth is an important routine activity in maintaining and maintaining dental health every day. Brushing teeth is a plaque control and the first step to prevent caries, therefore the ability and skills of children in doing it properly and correctly are very necessary (17).

CONCLUSIONS AND SUGGESTIONS

From the results of the study it can be concluded that there is an effect of counselling with demonstration methods on tooth brushing skills in students of SDN 1 Lampeunerut Aceh Besar. It is recommended that students apply the knowledge from counselling with demonstration methods that have been taught and maintain oral health. To the school and other related parties are expected to provide counselling and information about maintaining proper dental health in school children. dental caries in adolescents at SMA Negeri 9 Banda Aceh was the most moderately categorized, namely 23 respondents (42.6%). Knowledge alone is not enough to guarantee that adolescents have low caries status, it is because adolescents do not apply knowledge of maintaining dental health in their lives, so it is hoped that adolescents will be more active in seeking information on social media about knowledge about dental health and preventing dental caries.

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