



## WALUYA THE INTERNATIONAL SCIENCE OF HEALTH JOURNAL

# The Effect of Counseling on Student Behavior in Preventing Caries of the Permanent First Molars at Hidayatullah Islamic Elementary School and Al-Fath Islamic Boarding School Kendari City

Mery Erfiani<sup>1</sup>, Tasnim<sup>2</sup>, Sunarsih<sup>2</sup>

<sup>1</sup> Bina Husada Kendari Polytechnic, Indonesia

<sup>2</sup> Mandala Waluya University, Indonesia

Correspondence : merysabeck@gmail.com

### ARTICLE INFO

#### Article history

Received : October 17<sup>th</sup>, 2022

Revised : December 19<sup>th</sup>, 2022

Accepted : December 27<sup>th</sup>, 2022

#### Keywords

Counseling,  
Dental Caries,  
Knowledge,  
Attitude,  
Action.

### ABSTRACT

**Introduction:** Counseling is an educational activity carried out by giving messages, instilling confidence, so that people are not only aware, know and understand but are also willing and able to make recommendations that have to do with health. Health education is a combination of various activities and opportunities based on learning principles to achieve a situation where individuals, families, groups, or society as a whole want to live healthy, knowhow and do what can be done individually or in groups and receive help.

**Method:** This research is a quantitative research type with a pre-experimental design. This research will be carried out at Hidayatullah Islamic Elementary School and Al-Fath Islamic Boarding School Kendari City. The population is Hidayatullah Islamic Elementary School students, Kendari City, totaling 86 students and Pesantren Al-Fath Kendari totaling 58 students, so the population in this study was 144.

**Result:** The results of this study using Mann-Whitney test showed that the effect of counseling on student's knowledge ( $p\text{-value} = 0,007 < 0,05$ ). The effect of counseling on student's attitudes ( $p\text{-value} = 0,000 < 0,05$ ). The effect of counseling on student's and actions ( $p\text{-value} = 0,020 < 0,05$ ).

**Conclusion:** There were differences effect of counseling using combination methods of lectures, discussions, practices, and role models on students' knowledge, attitudes, and actions in preventing caries of the permanent first molars at Hidayatullah Islamic Elementary School Kendari.

### Introduction

In Indonesia, the most common diseases found in the oral cavity are dental caries and periodontal disease. This is a major problem in

dental and oral health. Elementary school age children need more attention because they are vulnerable to dental and oral health problems. Children's knowledge about the right time to brush

their teeth is still very lacking and they are still not able to get used to doing dental and oral health maintenance. The current effort of the health office in suppressing the high rate of dental caries is the implementation of the School Dental Health Business program. This program is considered quite successful in increasing children's courage in the world of dental and oral health, but in its implementation, maximum results have not been obtained. This condition is caused by the behavior of children who are still lacking in how to brush their teeth properly and correctly and how to prevent dental caries.<sup>[1]</sup>

This behavior is influenced by many factors, including education, knowledge, and attitudes. This factor is supported by research conducted at Primary School 1 Minomartani Yogyakarta, which shows the effect of oral health counseling using power point media on the level of knowledge of dental and oral health of students aged 7-8 years Primary School 1 Minomartani Yogyakarta.<sup>[2]</sup>

Efforts to prevent caries in the permanent first molars require the involvement of all parties, especially in terms of student behavior. Behavior can be changed through increasing knowledge by means of counseling and delivery of information through communication media, either directly or indirectly. Combination media is a combination of three counseling methods, namely lectures, discussions, and practice using extension media that contains good and correct brushing and oral health care methods such as videos, power points, and leaflets. Video media is a teaching aid that can be heard and can be seen that can help students in teaching and learning which serves to clarify or make it easier to understand what they are going to learn.<sup>[3]</sup>

Powerpoint media is an application program that can be used to make presentations, both for meetings and planning other activities, including being used as learning media in schools. This media can be used in conducting dental and oral health education, with the ability to front picture, sound and effects can be used to make a nice and interesting slide. This media can also be used to display powerpoints in the form of videos, the goal is that the material presented becomes more lively and does not look boring to the target.<sup>[4]</sup>

Media role model is an extension technique by displaying examples of demonstration models in counseling. Media role models are considered

effective because they can directly show the cause/effect caused if you don't brush your teeth properly and correctly. The target will feel attracted because of the impact seen directly from the model. Based on Agy Rasita's research on the role of lecture method counseling and role playing (role model) on knowledge about brushing children's teeth in fifth grade students of Primary School Pancur Batu, Deli Serdang Regency, the average result before counseling using the lecture method was 10.4 and became 13.12 after the counseling was carried out while the overall average before the role modeling method was carried out was 10.8 to 13.18 after the counseling was carried out.<sup>[5]</sup>

Behavior is the totality of one's understanding and activities which are the joint result of internal and external factors. A person's behavior is something that is very complex, and has a very wide expanse. Benjamin Bloom (1908), an educational psychologist, distinguishes the existence of 3 areas, regions, domains or domains of this behavior, namely cognitive (cognitive), affective (affective), and psychomotor (psychomotor).<sup>[6]</sup> Permanent first molars are permanent teeth that erupt at the age of 6-7 years. This tooth is the 6th tooth from the median line in both the upper and lower jaws. These first molars are found in the upper and lower jaws which function to chew, pound, and grind food.<sup>[7]</sup> Dental caries is a disease of dental tissue characterized by tissue damage, starting from the tooth surface (niches, fissures, and interproximal areas) extending to the pulp area (Brauer's).<sup>[8]</sup>

## Method

This research is a quantitative research type with a pre-experimental design that aims to examine the effect of counseling on student behavior in preventing caries of permanent first molars at Hidayatullah Islamic Elementary School and Al-Fath Islamic boarding school, Kendari City. This research will be carried out at the Hidayatullah Islamic Elementary School which is located on Jend. AH. Nasution Street, Kambu District, Kendari City and Al-Fath Islamic Boarding School which is located on Terong Street, Kambu District, Kendari City.

**Result**

**Table 1** the results of statistical tests using the Mann-Whitney test, at = 0.05, obtained a p-value of 0.007 ( $p < 0.05$ ), meaning that there is a difference in the effect of the combination of lecture, discussion, and practice methods with the role model method on knowledge of students in preventing caries of permanent first molars at Hidayatullah Islamic Elementary School, Kendari City and Al-Fath Islamic Boarding School, Kendari City.

**Table 2** the results of statistical tests using the Mann-Whitney test, at = 0.05, obtained a p-value of 0.000 ( $p < 0.05$ ), meaning that there is a difference in the effect of the combination of

lecture, discussion, and practice methods with the role model method on Student attitudes in preventing caries of permanent first molars in Hidayatullah Islamic Elementary School, Kendari City and Al-Fath Islamic Boarding School, Kendari City.

**Table 3** the results of statistical tests using the Mann-Whitney test, at = 0.05, obtained a p-value of 0.020 ( $p < 0.05$ ), meaning that there is a difference in the effect of the combination of lecture, discussion, and practice methods with the role model method on Student actions in preventing caries of permanent first molars in Hidayatullah Islamic Elementary School Kendari City and Al-Fath Islamic Boarding School Kendari City.

**Table 1**  
**Differences in Effect of Combination Methods of Lectures, Discussions, Practices, and Role Models on Students' Knowledge in Preventing Caries of the Permanent First Molars at Hidayatullah Islamic Elementary School and Al-Fath Islamic Boarding School**

Knowledge	Hidayatullah Islamic Elementary School	Al-Fath Islamic Boarding School	Total	<i>p-value</i>
Not enough	1	0	1	0.007
Enough	6	14	20	
Good	56	28	84	
Total	63	42	105	

**Table 2**  
**Differences in Influence between Combination Methods of Lectures, Discussions, Practices, and Role Models on Students' Attitudes in Preventing Caries of Permanent First Molars in Hidayatullah Islamic Elementary School and Al-Fath Islamic Boarding School**

Attitude	Hidayatullah Islamic Elementary School	Al-Fath Islamic Boarding School	Total	<i>p-value</i>
Not enough	0	2	2	0.000
Enough	6	19	25	
Good	57	21	78	
Total	63	42	105	

**Table 3**  
**Differences in Effect of Combination Methods of Lectures, Discussions, Practices, and Role Models on Student Actions in Preventing Caries of the Permanent First Molars in Hidayatullah Islamic Elementary School and Al-Fath Islamic Boarding School**

Action	Hidayatullah Islamic Elementary School	Al-FathIslamic Boarding School	Total	<i>p-value</i>
Not enough	2	5	7	0.020
enough	6	8	14	
Good	55	29	84	
Total	63	42	105	

### Discussion

The results of the research conducted at Hidayatullah Islamic Elementary School Kendari City showed that of the 63 respondents who were sampled for extension research using the combination method, there were 1 respondent with less knowledge, 6 respondents with sufficient knowledge, and 56 respondents with good knowledge. Meanwhile, research conducted using the role model method at the Al-Fath Islamic Boarding School, Kendari City, showed that from 42 respondents there were 14 respondents with sufficient knowledge, and 28 respondents with good knowledge. This can be caused because students enjoy and take part in activities as mentioned by Santrock (2012) which states that role playing (role) model) has several skills, among others students train themselves to take the initiative and be creative.<sup>[9]</sup>

Students also train themselves to understand, and remember the contents of the counseling story as a whole, especially in terms of the practice of caring for dental and oral health. The results of statistical tests using the Mann-Whitney test, at  $\alpha = 0.05$ , obtained a  $p$ -value of 0.007 ( $p < 0.05$ ), meaning that there is a difference in the effect of the combination of lecture, discussion, and practice methods with the role model method on knowledge of students in preventing caries of permanent first molars at Hidayatullah Islamic Elementary School Kendari City and Al-Fath Islamic Boarding School Kendari City. The results of this study are in line with research conducted by Agy Rasita (2019) which states that the level of knowledge of students after

being given counseling using the lecture method, obtained 15 students (93.75%) with good criteria, 1 student (6.25%) with moderate criteria, and 0 students (05) with poor criteria. Meanwhile, in counseling using the role model method, the overall level of knowledge of the respondents became better.<sup>[10]</sup>

Counseling with the role model method is far more instrumental than the lecture method counseling in increasing students' knowledge about how to take care of dental and oral health, as well as the results of research conducted by Pahrur Razi in 2018 which stated that dental health education using the role play method (models), videos, and hand puppets were more effective in improving early childhood tooth brushing skills as indicated by the significance value at 0.000 ( $p < 0.05$ ).

### Conclusion

There is a difference in the effect of the combination of lecture, discussion, and practice methods with the role model method on students' knowledge in preventing caries of permanent first molars at Hidayatullah Islamic Elementary School Kendari and Al-Fath Boarding School Kendari City.

### Reference

1. Santi, A. U. P., & Khamimah, S. The effect of how to brush your teeth on dental caries in

- grade IV children at Public Elementary Schools satriaajaya 03 bekasi. *SEMNASFIP*. 2019;47-51.
2. Hardiansyah, Supariasa, I. D. N. Nutrition Science Theory and Applications. Jakarta: *EGC Medical Book Publisher*; 2016.
  3. Shanbhog, R., Raju, V., &Nandlal, B. Correlation of oral health status of socially handicapped children with their oral health knowledge, attitude, and practices from India. *Journal of natural science, biology, and medicine*. 2014; 5(1), 101-107.
  4. Liwe, M., Mintjelungan, C. N., &Gunawan, P. N. Prevalence of caries in permanent first molars in children aged 6-9 years at Elementary School, South Tomohon District. *e-GiGi*. 2015;3(2),416-420
  5. Lerisma A.R. The Role of Counseling Using the Lecture Method and Role Playing (Role Play) On the Level of Knowledge of Brushing Children's Teeth in Class V Students of Public Alementary Cchool 101820 Pancur Batu Deli Serdang Regency. *Poltekkes Medan*; 2019
  6. Notoatmodjo, S. *Health Promotion and Behavioral Sciences*. Jakarta: RinekaCipta; 2010.
  7. Itjiningsih, W. H. Dental Anatomy Edition 2. Jakarta: *EGC Medical Book Publisher*; 2014.
  8. Tarigan, R. *Dental Caries*. Jakarta: EGC; 2014
  9. Santrock, J. W. *Child development. Edition 11 Volume 1*. Jakarta: Erlangga; 2007
  10. Jumriani, J. Correlation between Tooth Brushing Frequency and Dental and Oral Hygiene Level in Students of BTN IKIP I Elementary School, Makassar City. *Dental Health Media: Politeknik Health Makassar*. 2018;17(2),46-55.