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by Rena Setiana

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**THE EFFECT OF DENTAL AND MOUTH HEALTH EDUCATION
USING POWTOON MEDIA ON THE KNOWLEDGE AND
PRACTICE OF DENTAL BRUSHING IN CLASS V SDN JAYA
NUGRAHA, TASIKMALAYA REGENCY**

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Rena Setiana Primawati^{1,2}, Hilmiy Ila Robbihi^{1,2}

¹**Dental Health Department, PoltekkesKemenkesTasikmalaya, Indonesia**

²**Health andDisasterEmergency (HADE) Center, Center ofExcellentPoltekkes
Tasikmalaya, Indonesia**

**Corresponding author: renakeysharezka@gmail.com*

ABSTRACT

Background: According to the **17** Data **22** Information Center of the Ministry of Health of the Republic of Indonesia in 2018, children are vulnerable to dental and oral health problems. Tooth brushing behavior in children aged 10-14 years has a percentage of the correct brushing time of 2.1%. Efforts to improve good and correct tooth brushing behavior can be done with dental health counseling using multimedia applications. During the COVID-19 pandemic, multimedia applications were the right choice to facilitate counseling due to circumstances that did not allow face-to-face meetings and had to keep a distance, **17** of the multimedia applications that could be used ispowtoon. **Research objectives:** To determine the effect of counseling using powtoon on increasing knowledge and practice of brushing teeth at SDN Jaya NugrahaTasikmalaya. **The results:** it was found that the knowledge of students before being given counseling had moderate criteria with a percentage of 56.6% while after being given counseling increased to good criteria with a percentage of 85.3% and the practice of brushing teeth before being given counseling had sufficient criteria with a percentage of 61.1% while **15** ter being given counseling increased to very good criteria with a percentage of 92.5%. **The results of data analysis using the Wilcoxon test** **17** with p-value: $0.000 < 0.005$ which means H_0 is rejected and there are significant results. **Conclusion:** Based on the results of the study, it can be concluded that there is an effect of counseling using powtoon on knowledge of oral health and tooth brushing practices.

Keywords: Powtoon Media, Knowledge, Practice of brushing teeth.

BACKGROUND (Uppercase Bold, 12 pts)

9 Health is a state of physical, mental, emotional and social well-being that enables everyone to lead a socially and economically productive life (Rahminingrum, 2018). Dental and oral health is a condition that occurs in the oral cavity, both in terms of hygiene, health, as well as disturbances and abnormalities that occur in the oral cavity (Asep, 2013). Maintaining good dental and oral hygiene is one of the best ways to improve one's health. The mouth is not only a place to eat and drink, but has many other benefits, and some people do not realize how important the mouth is for one's health and well-being (Ratih & Yudita, 2019).

Some people neglect dental and oral health in general. Dental and oral care are not considered important even though there are many benefits that support health and appearance (20) (Tih & Yudita, 2019). According to Health Research Results in 2018, it was found that 57.6% of the Indonesian population experienced dental and oral health problems and who received medical services only 10.2%. Data shows that 22.8% of the Indonesian population does not brush their teeth, 77.2% brushes their teeth, and 8.1% brushes their teeth properly and correctly. The prevalence of cavities in early childhood is very high at 93% and only 7% are free from cavities (Risksesdes kemenkes RI, 2018).

One of the efforts to improve the behavior of brushing teeth is good and right, one of which is promotive action in the form of counseling. To attract people to remember 90% of what they see, read, hear, say, and create can use Interactive Multimedia. Interactive Multimedia consists of graphics or elements of text, video, animation simultaneously, and audio (Majid 2020).

As a multimedia application that can be used as a learning medium, powtoon has several advantages, including hand-drawn animation, very interesting animation features such as animated cartoons and transition effects, and easy timeline settings. This application can be accessed online at www.powtoon.com, so kids don't need to install powtoon on computer or mobile, www.powtoon.com is available online, but the results are available offline in the form of a presentation (Sulkipani, et al., 2018).

SDN Jaya Nugraha is located in Tasikmalaya Regency and previously there has never been any counseling on how to maintain oral health using powtoon media. In this study, powtoon media was used to convey material about dental and oral health and practice on how to brush teeth properly and correctly.

Based on the results of a pre-research that was conducted at SDN Jaya Nugraha, Tasikmalaya Regency in January 2021 through interviews with SDN Jaya Nugraha, Tasikmalaya Regency, it was found that counseling on dental and oral health using powtoon media had never been done. The counseling that has been carried out by the puskesmas uses conventional media, namely using the panthom model media.

RESEARCH METHODS

This study uses a descriptive type of research by means of observations and 21) observations carried out simultaneously at the same time. The design in this study used a pre-test and post-test design in one group which was carried out on 8, 19, and 29 April 2021 at Madrasah Al-Maqbul, Tasikmalaya Regency (adjacent to SDN Jaya Nugraha). The research sample was 26 students with the determination of the sample by means of total sampling.

The study was conducted by means of pretest and posttest to see the description of knowledge and practice of brushing teeth before and after being given counseling using powtoon media. Researchers recorded pretest data on April 8, 2021 in the form of filling out a questionnaire on knowledge of dental and oral health for approximately 20 minutes and observing the practice of brushing teeth. Then an intervention was given in the form of counseling using Powtoon media through the Whats App application. The second week on April 19, 2021 only provided dental and oral health counseling using the Whats App media, then on April 29, 2021 gave a posttest to students in the form of a questionnaire that was given a processing time of approximately 20 minutes and practiced brushing teeth to see the level of knowledge and practice of brushing. students' teeth after being given counseling using Powtoon media.

The data obtained were then analyzed using observation and observations to describe the knowledge and practice of brushing teeth before and after being given

counseling using powtoon media in Class V Elementary School Students Jaya Nugraha, Tasikmalaya Regency. After the data was processed, it was found that the knowledge of students before being given counseling had moderate criteria with a percentage of 56.6% while after being given counseling increased to good criteria with a percentage of 85.3% and the practice of brushing teeth before being given counseling had sufficient criteria with a percentage of 61.1% while after being given counseling increased to very good criteria with a percentage of 92.5%.

6 RESULTS AND DISCUSSION

A. Result

Table 1 Distribution of Research Sample Frequency by Gender

	Gender	ΣN	Percentage
1	Male	11	42%
2	Female	15	58%
	Total	26	100%

Table 1 shows that there are 15 women (58%) and 11 men (42%).

Table 2 Distribution of Frequency Before Giving Counseling Using Powtoon Media Based on the Criteria for Knowledge of Dental and Oral Health in Class V Students at SDN Jaya Nugraha, Tasikmalaya Regency

No	Knowledge Criteria	ΣN	Percentage
1	Good	5	19%
2	Moderate	19	73%
3	Bad	2	8%
	Total	26	100%

Table 2 shows that the criteria for knowledge of dental and oral health for fifth grade students at SDN Jaya Nugraha before being given counseling using Powtoon media were mostly moderate criteria, totaling 19 students (73%).

Table 3 Distribution of Frequency After being Given Counseling Using Powtoon Media Based on the Criteria for Knowledge of Dental and Oral Health in Class V Students at SDN Jaya Nugraha, Tasikmalaya Regency

No	Knowledge Criteria	ΣN	Percentage
1	Good	25	96%
2	Moderate	1	4%
3	Bad	0	0%
	Total	26	100%

Table 3 shows that the criteria for knowledge of dental and oral health for fifth grade students at SDN Jaya Nugraha after being given counseling using Powtoon media are mostly good criteria, totaling 25 students (96%).

Table 4 Distribution of Frequency ¹ After being Given Counseling Using Powtoon Media Based on the Criteria for Brushing Tooth Practice in Class V Students at SDN Jaya Nugraha, Tasikmalaya Regency

No	Knowledge Criteria	ΣN	Percentage
1	Very good	0	0%
2	Good	10	38%
3	Enough	15	58%
4	Less	1	4%
Total		26	100%

Table 4 shows that the criteria for brushing the teeth of fifth grade students at SDN Jaya Nugraha before being given counseling using powtoon media were mostly sufficient criteria, amounting to 15 students (58%).

Table 5 Frequency distribution ¹ after being given counseling using Powtoon media based on the criteria for brushing teeth in fifth grade students at SDN Jaya Nugraha, Tasikmalaya Regency

No	Knowledge Criteria	ΣN	Percentage
1	Very good	23	88%
2	Good	3	12%
3	Enough	0	0%
4	Less	0	0%
Total		26	100%

Table 5 shows that the criteria for brushing teeth for fifth grade students at SDN Jaya Nugraha after being given counseling using powtoon media are mostly very good criteria, totaling 23 students (88%).

Table 6 Statistical Test Results Wilcoxon Signed Ranks Test ³ The Effect of Dental and Oral Health Counseling Using Powtoon Media on Knowledge and Toothbrushing Practices of Class V Students at SDN Jaya Nugraha, Tasikmalaya Regency

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Test Statistics^a

	Post Test - Pre Test
Z	-4,473 ^b
Asymp. Sig. (2-tailed)	,000

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

Table 6 shows the results of statistical tests using the Wilcoxon test ³ the effect of dental and oral health counseling using powtoon media on knowledge and practice of brushing teeth ⁴ obtained p-value: ³000 < 0.005 which means Ho is rejected and there are significant results, then there is an effect of dental and oral health counseling using powtoon media on

the knowledge and practice of brushing teeth in fifth grade students at SDN Jaya Nugraha, Tasikmalaya Regency.

B. Discussion

The research was carried out for 21 days and was conducted for 3 meetings at Madrasah Almakul (adjacent to SDN Jaya Nugraha, Tasikmalaya Regency) on 8, 19, and 29 April 2021. This study was conducted to see the description of counseling using powtoon media on dental and oral health knowledge, and the practice of brushing the teeth of grade 5 students at SDN Jaya Nugraha, Tasikmalaya Regency. In this study using 26 samples taken from fifth grade students at SDN Jaya Nugraha. Dental and oral health counseling with powtoon media can be done through the Whatsapp application.

The first week of April 8, 2021, which is to give students a pretest in the form of a questionnaire sheet which is given a processing time of approximately 20 minutes and to practice brushing teeth to see the level of knowledge and practice of brushing students' teeth before being given dental and oral health counseling using powtoon media, then providing counseling first using the powtoon media through the Whatsapp application. The second week on April 19, 2021 only provided dental and oral health counseling to grade 5 students with powtoon media through the Whatsapp application, and the third week on April 29, 2021 gave a posttest to students in the form of a questionnaire that was given a processing time of approximately 20 minutes and carried out brushing practices, teeth to see the level of knowledge and practice of brushing students' teeth after being given counseling with powtoon media.

The type of research used is descriptive research where observations and observations are carried out simultaneously (simultaneously) with the aim of seeing an overview of dental and oral health knowledge and tooth brushing practices before and after counseling using powtoon, for the design in this study using one group pretest-posttest. This design also does not have a comparison group (control), but at least the first observation (pretest) can be done to test the changes that occur after the experiment (program) (Notoatmodjo 2018) The independent variable is counseling with powtoon media while the dependent variable is knowledge of dental and oral health and the practice of brushing teeth.

The research sample was taken by total sampling, total sampling was the object under study and considered to represent the entire population (Notoatmodjo 2018b). In this study, 26 samples were taken from the fifth grade students of SDN Jaya Nugraha, Tasikmalaya Regency.

The knowledge of grade 5 students at SDN Jaya Nugraha, Tasikmalaya Regency before being given counseling using the Powtoon media, which is mentioned in table 2. The results obtained are good, there are 5 students (73%), while there are 19 students (30%) and less than 2 students (8%), while after being given counseling using powtoon media, which is mentioned in table 3. the results obtained are 25 students (96%), and only 1 student (4%). The average knowledge of grade 5 students at SDN Jaya Nugraha, Tasikmalaya Regency, showed that before being given counseling with powtoon media, the category was moderate with a percentage of 56.6%, and after being given counseling with powtoon media, the criteria was good with a percentage of 85.3%. The average difference obtained before and after being given counseling using powtoon media is quite large, namely 28.7%.

The results of this study are in line with research (Majid, 2020) research on the Utilization of Interactive Multimedia-Based Dental and Oral Health Counseling, to remember 90% of what they hear, see, read, say, and create can use Interactive

Multimedia. According to (Sulkipani 2018) in his research, the development of learning media based on the Powtoon application in Citizenship Lessons in this study was carried out by presenting audiovisual material with attractive templates and images that aimed to motivate students. This is reinforced in the research of Hamalik (2010) when the use of learning media in the teaching and learning process can cause motivation and stimulation for learning activities and even affect student psychology.

In table 4. it is stated that the criteria for brushing the teeth of grade 5 students at SDN Jaya Nugraha, Tasikmalaya Regency before being given counseling using powtoon media namely 10 students (38%), only 15 students (58%) and less than 1 student (4%) , while after being given counseling using powtoon media in table 4.5. obtained very good results totaling 23 students (88%), and good amounting to 3 students (12%). The average criteria for brushing the teeth of grade 5 students at SDN Jaya Nugraha, Tasikmalaya Regency, showed that before being given counseling using powtoon media was 14.6 (61.1%) with sufficient criteria, while after being given counseling using powtoon media it was 22.2 (92.5%) with very good criteria. The average difference in students' tooth brushing practice criteria before and after being given counseling using powtoon media was 7.6 (31.4%).

Based on the data above, the results of this study obtained an overview of counseling using powtoon media on knowledge of dental and oral health as well as the practice of brushing teeth for fifth graders at SDN Jaya Nugraha, Tasikmalaya Regency. Researchers conducted a study to determine the level of knowledge of dental and oral health as well as the practice of brushing teeth using powtoon media to make it more interesting. Counseling is given for a long time and repeatedly for 3 meetings in a span of 3 weeks so that students can understand and remember the counseling material provided, this can increase the enthusiasm for learning and be able to increase students' knowledge, especially knowledge about dental and oral health. The level of knowledge of students before being given counseling using powtoon media with moderate criteria while after being given counseling increased to good, and the level of student brushing practice before being given counseling on powtoon media with sufficient criteria, while after being given counseling increased to very good.

Students' knowledge increased after being given counseling with powtoon media which was given 3 times for 3 weeks, 5th grade students at SDN Jaya Nugraha began to apply the information they got from counseling in their daily lives, for example by brushing their teeth regularly 2 times a day with the same technique and frequency. appropriate, reduce the consumption of foods that damage teeth and eat fruits and vegetables that can nourish teeth.

CONCLUSION AND RECOMMENDATION

4. CONCLUSION

Based on the results of the research that has been done, it can be concluded that counseling using powtoon media has an effect on knowledge of dental and oral health and the practice of brushing teeth for fifth graders at SDN Jaya Nugraha, Tasikmalaya Regency.

B. RECOMMENDATION

1. For fifth grade students at SDN Jaya Nugraha

It is recommended to brush your teeth twice a day in the morning after breakfast and at night before going to bed for 2 minutes and check your teeth every 6 months to the dentist.

2. For SDN Jaya Nugraha
It is hoped that they can carry out mass toothbrushing activities in schools in collaboration with the Taraju District Health Center.
3. For Dental Nursing Department
Hopefully the results of this study can add to the source of literature and information in the field of dental health education.
4. For further researchers
Hopefully the results of this study can be used as a reference for conducting further research in order to improve the previous researchers.

REFEREN¹⁶S

- Asep, S. . (2013). Menyikat Gigi Tindakan Utama Untuk Kesehatan Gigi, *Jurnal Skala Husada*, Poltekkes Denpasar, Denpasar. 4.
- Majid, S. I. 2020. Pemanfaatan Penyuluhan Kesehatan Gigi Dan Mulut Berbasis Multimedia Interaktif. Skripsi.
- ¹³ Notoatmodjo. 2018a. "Metodologi Penelitian Kesehatan." Rineka Cipta.
- Notoatmodjo. 2018b. Metodologi Penelitian Kesehatan. Jakarta: Rineka Cipta.
- ¹⁰ Rahminingrum. (2018). Hubungan Pengetahuan Pemeliharaan Kesehatan Gigi dan Mulut dengan Status Kesehatan Gigi dan Mulut Pada Murid Kelas V di SDN 11 Baruga Kota Kendari. *Jurnal Kesehatan & Kesehatan Gigi*, 1(1), 1–11.
- ⁵ Ratih, I. A. D. K., & Yudita, W. H. (2019). Hubungan Tingkat Pengetahuan Tentang Cara Memelihara Kesehatan Gigi dan Mulut dengan Ketersediaan Alat Menyikat Gigi pada Narapidana Kelas IIB Rutan Gianyar Tahun 2018. *Jurnal Kesehatan Gigi*, 6(2), 23–26.
- ⁷ Sulkipani et al. 2018. "Pengembangan Media Pembelajaran Berbasis Powtoon Pada Perkuliahan Pendidikan Kewarganegaraan." *Jurnal Civics: Media Kajian Kewarganegaraan*.
- ⁷ Sulkipani, Nurdiansyah. E; Faisal E. E; 2018. "Pengembangan Media Pembelajaran Berbasis Powtoon Pada Perkuliahan Pendidikan Kewarganegaraan." *Jurnal Civics: Media Kajian Kewarganegaraan*.

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