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The Effect of Dental and Oral Health Education with Animated Video Media and Props (Phantom) Teeth Brushing Behaviorin Asy-Syati'iyah Madrasah and Baitul Quran Kendari in 2021

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ABSTRACT

Introduction: Dental and oral health is an essential element of a person's physical and mental health and well-being. Dental and oral health can describe physiological, psychological and social conditions, and play an important role in the quality of life. Dental and oral health education activities can increase a person's awareness to use dental and oral health services so as to reduce the severity of dental and oral diseases.

Method: This research is a quantitative research type with a pre-experimental design. This research will be conducted in Madrasah Tsanawiyah Asy-Syati'iyah and Baitul Quran Kendari. The population in this study were students of Madrasah Tsanawiah Asy-Syati'iyah and Baitul Quran, totaling 128 students

Result: The results of this study indicate the effect of dental and oral health education with animated video media on tooth brushing behavior in Madrasah Tsanawiyah Asy-Syati'iyah. There is an effect of dental and oral health education with props (phantom) on the behavior of brushing teeth in Baitul Quran Kendari. It was concluded that there were differences in the effect of dental and oral health education with animated video media and visual aids (phantom) on tooth brushing behavior in Madrasah Tsanawiyah Asy-Syati'iyah and Baitul Quran Kendari with p value 0.0012 ($p < 0.05$).

Conclusion: Suggestions in this study are expected to the education office to increase students' knowledge in maintaining dental and oral health.

Introduction

Dental and oral health can be defined in various aspects including the ability to chew, swallow, taste, smell, speak, smile, touch, and express confidently, without pain and discomfort

and without craniofacial disease. ^[1] Dental and oral health is an essential element of a person's physical and mental health and well-being. Dental and oral health can describe physiological, psychological

and social conditions, and play an important role in the quality of life.^[2]

The most widespread dental and oral diseases are caries and periodontal disease. The disease affects 67.5% to more than 80% of students in some countries and is the heaviest health burden. Public awareness in maintaining dental and oral health is still low. Neglect of dental and oral hygiene can be the cause of dental and oral health problems in the community. The problem of the level of oral hygiene has an important role in efforts to maintain and maintain healthy teeth and dental supporting tissues.^[3] Dental and oral disease is one of the national health problems so that dental and oral health and efforts to improve optimal health status should be given more attention.^[4]

Many factors can cause dental caries, one of which is the attitude of the child. Children's attitudes towards dental care vary widely, some are brave, afraid, some even refuse to go to the doctor for dental treatment. Some children come to the dentist because they have dental problems, this condition can certainly affect children's knowledge and attitudes.^[5]

According to the 2018 Basic Health Research Data, the prevalence of caries in Indonesia is 88.8% with a root caries prevalence of 56.6%. The prevalence of caries tends to be high (above 70%) in all age groups. The highest caries prevalence was in the 55-64 years age group (96.8%). Meanwhile, the prevalence of root caries tends to increase in line with the increasing age group. The highest prevalence of root caries was in the 35-44 year age group, then decreased again in the following age group.^[6]

Method

This research is a quantitative research with a pre-experimental design that aims to examine the effect of oral health education using animated video media and visual aids (*phantom*) on tooth brushing behavior in Madrasah Tsanawiyah Asy-Syati'iyah and Baitul Quran Kendari.^[7] This research will be conducted in Madrasah Tsanawiyah Asy-Syati'iyah which is located on market street Baruga No.15, Kendari City, Southeast Sulawesi and Baitul Quran which is

located on Wua-wua street, Anggoeya, sub-district Poasia, Kendari City, Southeast Sulawesi.

Result

Table 1 the results of statistical tests using the Wilcoxon, at = 0.05, obtained a p-value of 0.000 ($p < 0.05$), meaning that there is an effect dental and oral health education by using animated video media and props (*phantom*) on the knowledge of brushing teeth at Madrasah Tsanawiyah Asy-syati'iyah. The results of statistical tests using the Wilcoxon, at = 0.05, obtained a p-value of 0.000 ($p < 0.05$), meaning that there is an effect dental and oral health education using animated video media on tooth brushing attitudes in Madrasah Tsanawiyah Asy-syati'iyah. The results of statistical tests using the Wilcoxon, at = 0.05, obtained a p-value of 0.000 ($p < 0.05$), meaning that there is an effect dental and oral health education by using animated video media on the act of brushing teeth at Madrasah Tsanawiyah Asy-syati'iyah.

Table 2 the results of statistical tests using the Wilcoxon, at = 0.05, obtained a p-value of 0.000 ($p < 0.05$), meaning that there is an effect dental and oral health education by using visual aids (*phantom*) on the knowledge of brushing teeth in the Baitul Quran. The results of statistical tests using the Wilcoxon, at = 0.05, obtained a p-value of 0.000 ($p < 0.05$), meaning that there is an effect dental and oral health education by using visual aids (*phantom*) on the attitude of brushing teeth in the Baitul Quran. The results of statistical tests using the Wilcoxon, at = 0.05, obtained a p-value of 0.000 ($p < 0.05$), meaning that there is an effect dental and oral health education by using visual aids (*phantom*) for the act of brushing teeth in the Baitul Quran.

Table 3 statistical test results using the Mann-Whitney, at = 0.05, obtained a p-value of 0.007 ($p < 0.05$), meaning that there is a difference in the effect of Dental and Oral Health Education with Animated Video Media and Props (*Phantom*) Towards Knowledge of Brushing Teeth in Madrasah Tsanawiyah Asy-Syati'iyah and Baitul Quran.

Table 4 statistical test results using the Mann-Whitney, at = 0.05, obtained a p-value of 0.000 ($p < 0.05$), meaning that there is a difference in the effect of Dental and Oral Health Education with

Animated Video Media and Props (Phantom) Against the Attitude of Brushing Teeth in Madrasah Tsanawiyah Asy-Syati'iyah and Baitul Quran.

Table 5 statistical test results using the Mann-Whitney test, at = 0.05, obtained a p-value of

0.012 ($p < 0.05$), meaning that there is a difference in the effect of Dental and Oral Health Education with Animated Video Media and Props (Phantom) Against Brushing Teeth in Madrasah Tsanawiyah Asy-Syati'iyah and Baitul Quran.

Table 1
The Effect of Dental and Oral Health Education Animated Video Media and Props (Phantom) on Knowledge, Attitude, and Action of Brushing Teeth in Madrasah Tsanawiyah

Variable	Total	<i>p-value</i>
Knowledge	49	0.000
Attitude	49	0.000
Action	49	0.000

Table 2
The Effect of Dental and Oral Health Education Animated Video Media and Props (Phantom) on Knowledge, Attitude, and Action of Brushing Teeth in the Baitul Quran

Variable	Total	<i>p-value</i>
Knowledge	49	0.000
Attitude	49	0.000
Action	49	0.000

Table 3
Differences in the Effect of Dental and Oral Health Education with Animated Video Media and Props (Phantom) on Knowledge of Brushing Teeth in Madrasah Tsanawiyah Asy-Syati'iyah and Baitul Quran

Knowledge	Madrasah Tsanawiyah Asy-Syati'iyah	Baitul Quran	Total	<i>p-value</i>
Good	55	28	83	0.007
Enough	6	13	19	
Less	2	1	3	
Total	63	42	105	

Table 4
Differences in the Effect of Dental and Oral Health Education with Animated Video Media and Props (Phantom) on Teeth Brushing Attitudes in Madrasah Tsanawiyah Asy-Syati'iyah and Baitul Quran

Attitude	Madrasah Tsanawiyah Asy-Syati'iyah	Baitul Quran	Total	<i>p-value</i>
Good	55	24	79	0.000
Enough	7	18	25	
Less	0	2	2	
Total	62	44	106	

Table 5
Differences in the Effects of Dental and Oral Health Education with Animated Video Media and Props (Phantom) on the Action of Brushing Teeth in Madrasah Tsanawiyah

Action	Madrasah Tsanawiyah Asy-Syati'iyah	Baitul Quran	Total	<i>p-value</i>
Good	45	4	49	0.012
Enough	6	8	14	
Less	5	2	7	
Total	56	14	70	

Discussion

Based on the results of the study, it showed that 49 respondents had knowledge before and after dental and oral health education using animated video media at Madrasah Tsanawiyah Asy-Syati'iyah, namely 6 respondents had good knowledge, 10 respondents had sufficient knowledge and 35 respondents lacked knowledge. The results of statistical tests using the Wilcoxon, at = 0.05, obtained a p-value of 0.000 ($p < 0.05$), meaning that there is an effect dental and oral health education by using animated video media and props (phantom) on the knowledge of brushing teeth at Madrasah Tsanawiyah Asy-syati'iyah.

Based on the results of the study, 49 respondents had attitudes before and after dental and oral health education using animated video media at Madrasah Tsanawiyah Asy-syati'iyah were 52 respondents with good attitudes, 2 respondents with sufficient attitudes and 1 respondent with poor attitudes. The results of statistical tests using the Wilcoxon, at = 0.05, obtained a p-value of 0.000 ($p < 0.05$), meaning that there is an effect dental and oral health education using animated video media on tooth brushing attitudes in Madrasah Tsanawiyah Asy-syati'iyah.

Based on the results of the study, 49 respondents had actions before and after dental and oral health education using animated video media at Madrasah Tsanawiyah Asy-Syati'iyah, namely 41 respondents with good action, 6 respondents with sufficient action and 2 respondents with less action. The results of

statistical tests using the Wilcoxon, at = 0.05, obtained a p-value of 0.000 ($p < 0.05$), meaning that there is an effect dental and oral health education by using animated video media on the act of brushing teeth at Madrasah Tsanawiyah Asy-syati'iyah.

Based on the results of the study, 49 respondents had knowledge before and after dental and oral health education using visual aids (phantom) in the Baitul Quran, namely 35 respondents with good knowledge, 14 respondents with sufficient knowledge and no respondents with poor knowledge. The results of statistical tests using the Wilcoxon, at = 0.05, obtained a p-value of 0.000 ($p < 0.05$), meaning that there is an effect dental and oral health education by using visual aids (phantom) on the knowledge of brushing teeth in the Baitul Quran.

Based on the results of the study, 49 respondents had attitudes before and after dental and oral health education using visual aids (phantoms) in Baitul Quran were 30 respondents with good knowledge, 19 respondents with sufficient knowledge and 2 respondents with poor knowledge. The results of statistical tests using the Wilcoxon, at = 0.05, obtained a p-value of 0.000 ($p < 0.05$), meaning that there is an effect dental and oral health education by using visual aids (phantom) on the attitude of brushing teeth in the Baitul Quran.

Based on the results of the study, 49 respondents had actions before and after dental and oral health education using visual aids (phantoms) in the Baitul Quran, namely 39 respondents with good actions, 6 respondents with sufficient actions and 5 respondents with less

actions. The results of statistical tests using the Wilcoxon, at $\alpha = 0.05$, obtained a p-value of 0.000 ($p < 0.05$), meaning that there is an effect of dental and oral health education by using visual aids (phantom) for the act of brushing teeth in the Baitul Quran.

Based on the results of the study, it showed that after being given dental and oral health education using animated video media at Madrasah Tsanawiyah Asy-syati'iyah there were 55 respondents with good knowledge, 6 respondents with sufficient knowledge and 2 respondents with poor knowledge. While dental and oral health education using visual aids (phantom) in Baitul Quran there are 28 respondents with good knowledge, 13 respondents with sufficient knowledge and 1 respondent with poor knowledge. The results of statistical tests using the Mann-Whitney, at $\alpha = 0.05$, obtained a p-value of 0.007 ($p < 0.05$), meaning that there is a difference in the effect of Dental and Oral Health Education with Animation Video Media and Props (Phantom) Towards Knowledge of Brushing Teeth in Madrasah Tsanawiyah Asy-Syati'iyah and Baitul Quran.

Based on the results of the study, it was shown that at the time after dental and oral health education using animated video media at Madrasah Tsanawiyah Asy-syati'iyah there were 55 respondents with good attitudes, 7 respondents with moderate attitudes. Meanwhile, with dental and oral health education with visual aids (phantom) in Baitul Quran there were 24 respondents with good attitudes, 18 respondents with moderate attitudes and 2 respondents with bad attitudes.

The results of statistical tests using the Mann-Whitney, at $\alpha = 0.05$, obtained a p-value of 0.000 ($p < 0.05$), meaning that there is a difference in the effect of Dental and Oral Health Education with Animated Video Media and Props (Phantom) Against the Attitude of Brushing Teeth in Madrasah Tsanawiyah Asy-Syati'iyah and Baitul Quran.

Based on the results of the study, it was shown that at the time after dental and oral health education using animated video media at Madrasah Tsanawiyah Asy-syati'iyah there were 45 respondents for good actions and 6 respondents for moderate actions and 5 respondents for bad actions. Meanwhile, with dental and oral health

education using visual aids (phantom) in the Baitul Quran there are 4 respondents for good actions, 8 respondents for adequate actions and 2 respondents for bad actions.

The results of statistical tests using the Mann-Whitney test, at $\alpha = 0.05$, obtained a p-value of 0.012 ($p < 0.05$), meaning that there is a difference in the effect of Dental and Oral Health Education with Animation Video Media and Props (Phantom) Against the act of brushing teeth in Madrasah Tsanawiyah Asy-Syati'iyah and Baitul Quran.

The health education delivered can be remembered if it uses effective teaching media tailored to the educational goals. The use of the right media will be able to attract full attention. Full attention to information will build one's interest and awareness to carry out new activities.^[8] Audio-visual media are teaching aids that combine moving images and sound so that they look real. The use of audio-visual media has its own advantages, namely it can increase interest and can improve children's listening skills.^[9]

Regarding the comparison of health promotion using audio with audio-visual media. This research shows that education conducted using audio-visual media is better than using audio media. because audio-visual media can stimulate children's vision and hearing simultaneously with educational materials.^[10]

Conclusion

There is a difference in the effect of Dental and Oral Health Education with Animation Video Media and Props (Phantom) on Knowledge, Attitude, and Action of Brushing Teeth in Madrasah Tsanawiyah Asy-Syati'iyah and Baitul Quran.

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