



The Effect of Topical Application Counseling Using Fairy Tale Book Media on the Level of Knowledge and Interest of Elementary School Children

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Abstract : Dental and oral health problem had a high prevalence were dental caries. Based on preliminary study used questionnaires on 10 students at SD Negeri Nogotirto, it was found the data that shows 70% of students had never received counseling about topical application to prevent dental caries. Through the topical application counseling used media, one of which was fairy tale book media expected to improve dental and oral health. Purpose : To knew the effect of topical application counseling used fairy tale book media on the level of knowledge and interest of elementary school children. Method : This study used a Quasi Experiment with a Pretest-Posttest Control Group Design. The sampling used saturated sampling technique with 60 respondents. The research variables were topical application counseling used fairy tale book media and the level of knowledge and interest. The data collection used pre-test and post-test questionnaires. The data analysis used Wilcoxon Signed Rank Test and Mann-Whitney test. Results : The knowledge level of topical applications before gave counseling used fairy tale book media with good criteria amounted to (46.7%) and after gave counseling became (86.7%). The interest in topical applications before gave counseling used fairy tale book media with high criteria of (56.7%) and after gave counseling to (86.7%). The result of Mann-Whitney obtained $0,021 < 0,05$ at the level of knowledge and $0,029 < 0,05$ at the level of interest. Therefore, it can be concluded that there was an effect of fairy tale book media on the level of knowledge and interest of elementary school children. Conclusion : Topical application counseling used fairy tale book media increased the knowledge and interest of elementary school children.

Keywords - Counseling, topical application, fairy tale book, level of knowledge, interest.

I. INTRODUCTION

Dental and oral health is a condition of the hard and soft tissues of the teeth and other elements in the mouth in a healthy condition so that individuals can carry out activities and interact socially comfortably.¹ Dental and oral health problems that have a high prevalence are dental caries. Based on the results of the 2018 Basic Health Research, the prevalence of caries in the 5-9 year age group is around 92.6% and the 10-14 year age group is around 73.4%. The percentage of caries problems in the province of DI. Yogyakarta is 47.7%. This shows that dental caries in elementary school children needs to be prevented.²

One effective way to prevent tooth decay in children is by applying topical fluoride. Topical application is the activity of applying fluoride directly to the tooth enamel.³ Instilling dental health education through counseling, especially regarding topical application material, is necessary to improve dental and oral health.⁴ Topical application counseling can be successful if the methods and media used support the learning process so that the message conveyed to children is easy to understand.⁵

There are various types of media that can be used for counseling, such as visual media which can change cognitive and psychomotor behavior and generate knowledge and interest in children.⁶ One of the visual media that can be used is a story book. Story books that contain components of illustrated media can be an innovation to convey counseling materials, help children understand and remember the material, and attract children's attention so that children are interested in learning about the counseling material.⁷

The results of a preliminary study on 10 students at Nogotirto Elementary School obtained data that 70% of students had never received topical application counseling and 60% of students had a high risk of caries. Based on this background, the author is interested in conducting research on the effect of topical application counseling using storybook media on the level of knowledge and interest of elementary school children.

II. METHODS

The type of research used was a quasi-experiment with a Pretest-Posttest Control Group Design which was carried out by randomly dividing two groups and providing a pre-test before the intervention and a post-test after the intervention.⁸ This study was conducted in February 2023 at Nogotirto Elementary School. The population in this study were students of Nogotirto Elementary School with a sampling technique using saturated sampling, namely a sampling technique when all members of the population are used as samples totaling 60 respondents. The group division was carried out by randomization, namely 30 respondents for the experimental group and 30 respondents for the control group. The sample used was in accordance with the inclusion criteria, namely 10-11 years of age and willing to be respondents and in accordance with the exclusion criteria, namely not being able to participate in research activities and not being willing to fill out the questionnaire.

The variables in this study include the influencing variables, namely topical application counseling using fairy tale book media and the affected variables, namely the level of knowledge and interest. The method of data collection uses primary data by distributing questionnaires to respondents and secondary data through attendance data consisting of name and gender. Before the data was analyzed, a normality test was carried out using Shapiro-Wilk, then the data was processed and analyzed using the Wilcoxon Signed Rank Test to determine the differences in knowledge and topical application interests in the experimental group and the control group before and after counseling. Then a Mann-Whitney test was carried out to determine the effect of counseling media on the experimental and control groups after counseling was given. This study has received ethical approval from the Health Research Ethics Committee (KEPK) of the Yogyakarta Ministry of Health Polytechnic with No.DP.04.03/e-KEPK.2/116/2023 dated February 11, 2023

III. RESULT AND DISCUSSION

The research entitled "The Effect of Topical Counseling Application Using Story Book Media on the Level of Knowledge and Interest of Elementary School Children" was conducted in February 2023 at Nogotirto Elementary School. The results of the study are as follows:

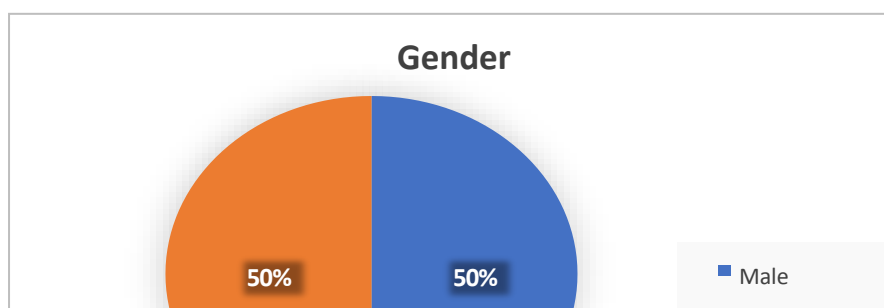


Figure 1. Frequency Distribution of Respondents Based on Gender

Figure 1 shows that the percentage of respondents with female and male gender is the same, namely 50%.

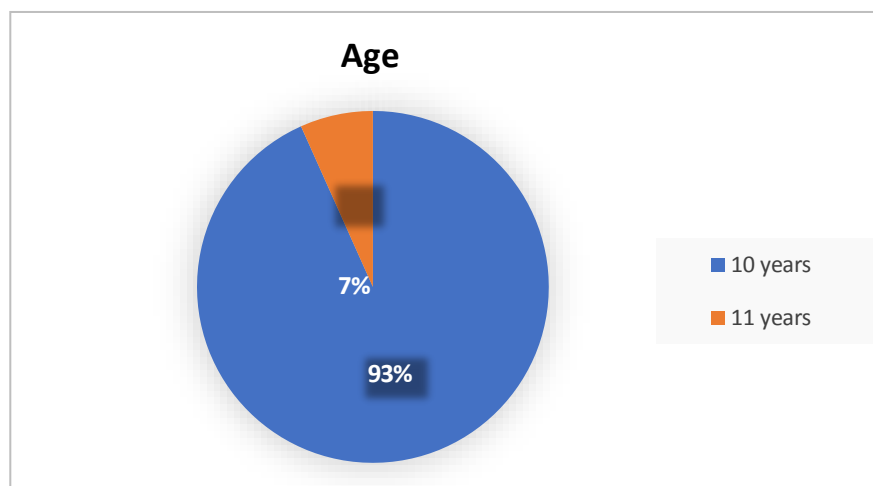


Figure 2. Frequency Distribution of Respondents Based on Age

Figure 2 shows that the percentage of the largest number of respondents is 10 years old, namely 93.3%. This is in accordance with research which states that elementary school children aged 10-11 years are able to think logically and realistically so that there is a sense of curiosity and interest in children when educational instillation is carried out through counseling.⁹ This is also in accordance with research which states that 10 year old children are able to determine what is right and what is bad so that they are able to take responsibility for what they do and are able to accept advice from other people.¹⁰

Tabel 1. Data Normality Test Results

Variable	n	p-value
Level of Knowledge		
Experiment (<i>Pre-test</i>)	30	0,004
Experiment (<i>Post-test</i>)	30	0,000
Control (<i>Pre-test</i>)	30	0,004
Control (<i>Post-test</i>)	30	0,001
Interest		
Experiment (<i>Pre-test</i>)	30	0,007
Experiment (<i>Post-test</i>)	30	0,001
Control (<i>Pre-test</i>)	30	0,007
Control (<i>Post-test</i>)	30	0,026

The results of the data normality test in table 1 were carried out using Shapiro-Wilk with the data obtained having a p value <0.05 , which means the data is not normally distributed.

Table 2. Results of the Wilcoxon Signed Rank Test Analysis of Knowledge Level

		Knowledge Level				
Grou		n	Std. Deviation	Mean Rank	Difference Mean	Asym.Sig. (p)
Experiment	<i>Pre-test</i>	30	2,869	10,67	2,5	0,000
	<i>Post-test</i>	30	2,135	13,17		
Control	<i>Pre-test</i>	30	2,828	10,27	2,0	0,000
	<i>Post-test</i>	30	2,690	12,27		

Table 2 shows that the Asymp. Sig (p) value = 0.000, then $p < 0.05$ can be concluded that there is a difference in the results of the level of knowledge before and after counseling in the experimental group and the control group. This is in accordance with research which states that there is a difference before and after being given topical application counseling.¹⁸

Tabel 3. Results of the Wilcoxon Signed Rank Test of Interest Analysis

		Interest				
Group		n	Std. Deviation	Mean Rank	Difference Mean	Asym.Sig. (p)
Experiment	<i>Pre-test</i>	30	3,467	10,33	2,64	0,000
	<i>Post-test</i>	30	2,092	12,97		
Control	<i>Pre-test</i>	30	3,097	9,17	2,53	0,000
	<i>Post-test</i>	30	2,380	11,7		

Table 3 shows that the Asymp. Sig (p) value = 0.000, then $p < 0.05$, it can be concluded that there is a difference in the results of interest before and after being given counseling in the experimental group and the control group. This is in accordance with research stating that counseling on the prevention of dental caries such as topical application can increase children's interest in doing topical application.¹⁹

Table 4. Results of the Mann-Whitney Test Analysis

Variable	Group	n	Mean Rank	Sum Rank	Asymp. Sig (p)
Knowledge Level	Experiment	30	33,27	1094,50	0,021
	Control	30	27,73	732,50	
Interest	Experiment	30	35,37	1061,00	0,029
	Control	30	25,63	769,00	

Table 4 shows that the results of the Mann-Whitney test on the experimental group and the control group on the variable level of knowledge obtained the value of Asymp.sig (p) = 0.021 then $p < 0.05$ which means H_0 is rejected and H_a is accepted meaning there is an influence on the level of knowledge of the experimental group and the control group after being given counseling using story book media and lecture methods. The average value of the level of knowledge in the experimental group is 33.27, while the average

value in the control group is 27.73. This is also in accordance with research which states that the delivery of counseling material is more effective if using the right methods and media during the counseling process.¹⁸ This is also in accordance with research which states that counseling using story books as a medium has a positive impact on children's knowledge because children are able to understand something through observations which are still influenced by fantasy.¹¹

The results of the Mann-Whitney test on the experimental group and the control group on the interest variable obtained the value of Asymp.sig (p) = 0.029, so $p < 0.05$ means that there is a significant influence on the interest of the experimental group and the control group after being given counseling using fairy tale book media and lecture methods. The average value of interest in the experimental group was 35.37, while the average value in the control group was 25.63. This is in accordance with research which states that fairy tales are entertaining and contain educational values so that they can stimulate children to be interested in something such as doing topical applications.²⁰ This is also in accordance with research which states that counseling using storybook media is more effective in increasing children's interest values because it is influenced by factors from within the child, so that there is encouragement for children to carry out one goal, such as carrying out topical applications.²¹

IV. CONCLUSION

The research above can conclude that Topical Application Counseling Using Fairy Tale Book Media has an effect on increasing the knowledge and interest of elementary school children

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