



Storytelling as increasing knowledge of dental health in kindergarten

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ABSTRACT

Background: The results of the 2018 Basic Health Research stated that 93%. One of the factors that cause tooth decay in children is knowledge. Efforts that can be made to increase dental health knowledge in school children can be done by providing dental health education. One method of providing health information to school-age children is the storytelling method. **Purpose:** To analyze the effectiveness of storytelling as a method for dental health education on dental health knowledge in kindergarten children. **Methods:** The type of research used in this study was a quasy experiment with a pretest and posttest design with one group design. This research was conducted at the Putradarma Modern Islamic Kindergarten. The sampling technique used a total sampling of 33 students. **Independent variable:** storytelling method and **dependent variable:** dental health knowledge. **Data analysis** was tested using paired sample t test. **Result:** The results of this study indicate that the average value of dental health knowledge before being given education using the storytelling method is 7.52 and after being given education using the storytelling method is 8.97, with the results of paired sample t-test $p < 0.001$ **Conclusion:** storytelling is effective as a method of dental health education in increasing dental health knowledge. **Conclusion:** Storytelling effective as a dental health education method in increasing dental health knowledge.

INTRODUCTION

Dental and oral health is very important for every individual, including children. Not taking care of your teeth and gums can lead to pain, difficulty chewing, and damage to other health. Dental and oral diseases in children can also interfere with their development. In addition, children are one of the most vulnerable age groups to dental caries (Handayani & Arifah, 2016).

The results of basic health research in 2018 show that 93% of children aged 5-6 years have dental health problems, with a national def-t rate of 8.43, which means that 8-9 children's teeth are damaged. This is not in accordance with WHO and FDI goals to ensure that 50% of children aged 5-6 years are free of dental caries (Kemenkes, 2018). In West Java Province, the prevalence of children aged ≥ 3 years having dental health problems was 57.99%. Meanwhile, in Bekasi Regency, the prevalence of children aged ≥ 3 years having dental health problems was 62.16% (Kemenkes, 2018).

Intra-oral factors, including tooth structure, morphology, arrangement of teeth in the jaw, salivary pH, oral hygiene related to tooth brushing habits, and the amount and frequency of consumption of sweet foods are the main causes of children's dental problems. In addition, extra oral factors function as inhibitors and indirect predisposition to dental caries. This includes age, gender, geographic location, economic class, as well as knowledge, attitudes and behavior regarding dental health care (Lintang, 2015). Of these several factors, behavior and knowledge factors are the causes of dental and oral health in children, because behavior will be good instilled if the knowledge is good. Research conducted by Silfia (2019) said that children's knowledge about dental health is still not good understood, because children do not pay enough attention to the material delivered by health workers.

According to Notoatmodjo (2014) Knowledge is the result of knowing that arises after someone senses something. Humans have 5 senses consisting of hearing, sight, smell, taste, and touch. Eyes and ears are a large part of a person's source of knowledge.

Ways that can be done to increase dental health knowledge in school children can be done by providing dental health education (Purnama et al., 2020). Dental Health Education is an educational process that arises on the basis of dental and oral health needs that aim to produce good dental and oral health and improve living standards. Changing individual behavior is not an easy job, in this case special skills are

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needed because changes in individual behavior always involve mental changes. The change itself occurs naturally, namely because of the environment or the surrounding community. However, there are also changes that occur in a planned and systematic manner, namely what is known as change through education (Pay et al., 2023; Purnama et al., 2019; Puspitawati et al., 2022). Research conducted by Harisnal (2018) states that health education has an influence on increasing knowledge about dental health. The educational method used influences the success of dental health education when changing behavior (Tandilangi, 2016).

The health education method is the method and use of assistive devices or technology where health education will be carried out to reach these goals. The use of methods and assistive devices when implementing health education depends on the size of the target group (Notoatmodjo, 2012).

According to Moeslichatoen (2016) states that the storytelling method is one of providing learning experiences for kindergarten children by telling stories to children orally. Stories told by teachers or health workers must be interesting and invite children's attention and cannot be separated from the goals of education for children. There are several important reasons why children need to listen to stories. One of them is because listening to stories is something fun for children (Bateman, 2022). Research conducted by Devi (2016) showed that the pretest knowledge level of students in the story group showed a score of 3.27 and when the posttest increased to 8.04, while the average level of knowledge when the pretest in the poster group showed a score of 2.72 and when the posttest increased to 6.27.

METHOD

The research design used in this study was a quasi-experimental design with a pretest and posttest with one group design. This research was conducted on Putradarma Islamic Kindergarten children, Tambun Selatan District, Bekasi Regency. The sampling technique used the total sampling method, so that the total sampling in this study was 33 students.

The instrument used in data collection was a questionnaires administered to measure knowledge about dental health. The data collection process began on the day before data collection by providing informed consent sheets to be filled out by parents and on the day of data collection the researcher explained how to fill out a questionnaire containing 10 questions, then in the second stage the respondents were given education using the storytelling method about how to maintain dental health, then in the final stage the respondent is given a post test questionnaire to measure the respondent's knowledge after being given education using the storytelling method. Data analysis used in this study used the SPSS program with paired sample t tests.

RESULT

Table 1. Frequency Distribution of Respondents by Age

Age	Frequency	Percent (%)
5 Years	8	24.2
6 Years	25	75.8
Total	33	100

Table 1 shows that the majority of respondents aged 6 years were 25 children (75.8%), and respondents aged 5 were 8 children (24.2%).

Table 2. Frequency distribution of dental health knowledge before education with storytelling method based on age

Age	Knowledge						Total	
	Good		Sufficient		Less		n	%
	n	%	n	%	n	%		
5 years	5	62.5	3	37.5	0	0	8	100
6 years	13	52	8	32	4	16	25	100
Total	18	54.5	11	33.3	4	12.1	33	100

Table 2 shows that of the 33 children who became respondents, the majority of the distribution of respondents was at the age of 6 years with a good knowledge category of 13 children (52%) and 5 children (62.5%) aged 5 years, then the distribution of the second most respondents was at the age of 6 years with the category of sufficient knowledge as many as 8 children (32%) and as many as 3 children (37.5%) aged

5 years, then followed by the category of less knowledge as many as 4 children (12.1%) at the age of 6 years and children 0 (0%) at the age of 5 years.

Table 3. Frequency distribution of dental health knowledge after education with storytelling method based on age

Age	Knowledge						Total	
	Good		Sufficient		Less		n	%
	n	%	n	%	n	%		
5 years	8	100	0	0	0	0	8	100
6 years	25	100	0	0	0	0	25	100
Total	33	100	0	0	0	0	33	100

Table 3 shows that after education with storytelling method, 33 respondents (100%) had good knowledge about dental health and there were no respondents in the sufficient category, and in the less category.

Table 4. Different test of dental and oral health knowledge before and after education with storytelling method

Knowledge	Mean	Difference	p-value
Pre-test	7.52	1.45	0.001
Pos-test	8.97		

Table 4 shows that the results of the paired sample test analysis obtained a p-value of 0.001, meaning that education with storytelling method is effective in increasing dental health knowledge.

DISCUSSION

The storytelling method can be used as a platform for sharpening imagination, provide understanding, and learn from experience experienced by the actors in the story. Various kinds of storytelling techniques can be used, namely teachers can read directly from books, use illustrations from picture books, use flannel boards, use puppets, and play roles in one story (Moeslichatoen, 2016).

The results showed that before education with storytelling method, the majority of the distribution of respondents was at the age of 6 years with a good knowledge category of 13 children (52%) and 5 children (62.5%) aged 5 years, then the distribution of the second most respondents was at the age of 6 years with the category of sufficient knowledge as many as 8 children (32%) and as many as 3 children (37.5%) aged 5 years, then followed by the category of less knowledge as many as 4 children (12.1%) at the age of 6 years and children 0 (0%) at the age of 5 years. Based on the age of dental health knowledge in the category of good knowledge, it is most common in children aged 6 years. Notoatmodjo (2014) said a person's mindset and comprehension develops with age, so they are better prepared to receive better information.

In carrying out this pretest, the majority have knowledge in the good category, but dental health education still needs to be given to increase children's knowledge. Researchers conduct education about dental health with the storytelling method, according to Putri & Maimaznah (2021) dental health education is an effort or activity to inform school children about dental health the aim is to provide them with more precise dental health knowledge. It is hoped that this knowledge will influence their behavior. One method of health education is storytelling, usually this method is very effective and is liked by school-age children (Abiyoga, 2017).

This can be seen in accordance with table 3, which explains that after dental health education using storytelling method, it shows that after being given education with storytelling method, all the total respondents showed that after education with storytelling method, all of the total modern Islamic kindergarten children Putradarma had knowledge about dental health in the good category, namely 33 students (100%), and there were no students in the sufficient category, and in the less category. It is proven that the results of this study also show that the mean difference before and after dental health education with storytelling method can provide an increase in knowledge about dental health, this can be seen from

the increase in the mean before education is 7.52 and after health education is given teeth and mouth there is an increase in the average knowledge of respondents to 8.97 with a good category, this can be seen by the results of a significant increase, namely the average results before education and after being given education, so there is a difference in results, namely an average increase increased to 1.45 and the statistical test results showed a value of $p = 0.001$.

In the previous research conducted by the average level of students' knowledge when pretest in the story group showed a score of 3.27 and when the posttest increased to 8.04, while the average level of knowledge when the pretest in the poster group showed a score of 2.72 and when the posttest increased to 6.27.

Based on the results of the research that was carried out after the intervention in providing storytelling education, the majority of respondents who took part in this study experienced an increase, this is because after the intervention using storytelling can increase children's knowledge in maintaining dental health. according to the objective indicators that the researcher compiled. Storytelling can be used as a place to hone imagination, provide understanding, and learn from the experiences of the actors in the story (Haryani et al., 2014). When children listen to storytelling, it is likely that many senses play a role, the more five senses, the education provided will be easier to understand, someone who has an understanding of a concept will make it easier for someone to practice it.

CONCLUSION

Based on the results of the research that has been done, it can be concluded that there is the storytelling effective as a dental health education method in increasing dental health knowledge.

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CONFLICT OF INTEREST

The authors declare that they have no conflict of interest

ETHICAL CLEARANCE

All participants were signed the informed consent prior to the data collection

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