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**Knowledge about Dental Using Dental Smart Cards in Class V Students of SDN
Rejosopinggir Jombang**

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ABSTRACT

Background: This is the high level of dental caries in class V students at SDN Rejosopinggir Jombang showing a high DMF-T index of 4.5. According to WHO, the average index standard can be said to be high if it has a score between 4.5-6.5. Dental caries has a bad impact on children. There are many ways to improve dental and oral health, one of which is promotional activities aimed at changing behavior from the knowledge aspect. **Purpose:** This research is to determine the difference in knowledge about dental caries before and after using a dental smart card in class V students at SDN Rejosopinggir Jombang in 2024. **Methods:** The data collection used was pretest and posttest. This type of research is quasi-experimental with a target number of 32 students, data analysis techniques using the Wilcoxon test. **Results:** Research using the Wilcoxon test resulted in $0,000 > 0.05$, meaning there was a difference in students' knowledge after being given a dental smart card. **Conclusion:** From this research, there is a difference in knowledge about dental caries before and after being given counseling using dental smart cards to class V students at SDN Rejosopinggir Jombang in 2024.

Keywords: Knowledge, Dental Caries, Dental Smart Card

INTRODUCTION

Dental caries, which is often referred to as cavities, is a disease in which bacteria gradually destroy the structure of tooth tissue, from the outer layer to the inside, including enamel, dentin and cementum (Khoiriyah et al., 2021)

Based on the results of Basic Health Research (RISKESDAS), the biggest dental and oral health problem in Indonesia is dental caries at 45.3%. The National DMF-T Index has an average of 7.1 at all ages, while the DMF-T index for the 10-14 year age group has an average of 1.8. The prevalence of caries in East Java is 42.4%, in children aged 10-14 years it was 41.4% and the prevalence in Jombang Regency in children aged 10-14 years was 38.98% (Kementerian Kesehatan RI, 2018).

Tooth decay is very common in children. This is because dental caries spreads more easily and quickly in primary

teeth and is even more severe than in permanent teeth. The habit of children who often consume sweet foods without maintaining good oral hygiene is one of the main factors that causes cavities in their teeth (Wicaksono et al., 2022).

One aspect that can influence the occurrence of dental caries is a person's level of understanding, attitudes and behavior. Dental caries is not only influenced by external factors such as diet and oral hygiene, but also depends greatly on the individual's level of knowledge, attitudes and actions towards dental care (Nisa, 2021).

Elementary school children can be divided into two groups: low class students, namely classes 1, 2, and 3, and high class students, namely classes 4, 5, and 6. Students in high classes usually have special characteristics, such as the ability to think logically and realistic, high curiosity,

and enthusiasm for learning.(Septianti & Afiani, 2020).

Educational games have proven to be effective in supporting the learning process and have advantages in various aspects when compared to conventional learning methods such as lectures using PowerPoint. Educational games are more fun, interactive, challenging, and can be played with many people. One form of educational game that is easy to use and can be played anywhere is card games (Wicaksono et al., 2022).

The results of the examination carried out on class V students at SDN Rejosopinggir Jombang with a total of 10 students showed that DMF-T was high with an average of 4.5. So it is not in accordance with the expected level of health according to the World Health Organization, the standard average index assessment according to WHO can be said to be very low, 0.0-1.1; Low 1.2-2.6 ; Medium 2.7-4.4 ; Height 4.5-6.5 ; very high > 6.6.

Based on the results of the examination above, the problem in this research is the high level of dental caries among students at SDN Rejosopinggir Jombang.

RESEARCH METHOD

This study uses quantitative research methods with Quasy Experiment with a one group pretest – post test design research design. The population in the study was 32 class V students at SDN Rejosopinggir Jombang. The sampling technique in this research used total sampling. The data collection instrument used in this research was a questionnaire sheet. analysis of dental caries knowledge using dental smart cards in class V students of SDN Rejosopinggir Jombang Statistical Package For The Social Science (SPSS) using the Wilcoxon test.

RESULT AND DISCUSSION

Table 1. Distribution of Student Characteristics Based on Age and Gender

Class V Students at SDN Rejosopinggir Jombang in 2024

Characteristics	Σ	%
Age		
10	4	13,3 %
11	28	87,5 %
Gender		
Male	16	50%
Female	16	50%

Table 2. Distribution of Knowledge Results about dental caries Before Using Dental Smart Card for Class V Students at SDN Rejosopinggir Jombang in 2024

Knowledge criteria	n	Persentase
Good	0	0%
Enough	16	53.3 %
Not enough	14	46,6%
Total	30	100%

Based on table 2, it is known that respondents' answers regarding knowledge of dental caries before using the Dental Smart Card were dominated by all students in the sufficient category, namely 53.3%.

Table 3. Distribution of Dental Caries Knowledge Results After Using Dental Smart Card for Class V Students at SDN Rejosopinggir Jombang in 2024

knowledge criteria	n	Persentase
Good	23	71,8%
Enough	9	28,2%
Not enough	0	0%
Total	32	100%

Based on table 3, it is known that students' knowledge about dental caries after using the Dental Smart Card is dominated by all students in the good category, namely 70%.

Table 4. Analysis Results Before and After Education on Dental Caries Knowledge Using Dental Smart Cards for Class V Students at SDN Rejosopinggir Jombang in 2024

Variabe l	Category	Asym p sig
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	Good	Enough	Not enough	
Pretest	0	18	14	0,000
Posttest	23	9	0	

Based on table 4, the results of the data analysis above using the Wilcoxon test show that the Asymp Sig value is $0.000 < 0.05$, so H_1 is accepted and H_0 is rejected, meaning that there is a difference in knowledge of dental caries before and after counseling using dental smart cards for class V students at SDN Rejosopinggir Jombang. This is shown by the results of the student score category before playing the game with the dental smart card, which got the Good category, none of which, whereas after playing the game with the dental smart card, the students who got the good category were 23 out of a total of 32 students.

CONCLUSION AND RECOMMENDATION

Based on the results of research and discussion regarding knowledge about dental caries using dental smart cards in class V students at SDN Rejosopinggir Jombang, it can be concluded that:

1. Knowledge about dental caries using dental smart cards in class V students at SDN Rejosopinggir Jombang is in the sufficient category.
2. Knowledge about dental caries using dental smart cards in class V students at SDN Rejosopinggir Jombang is in the good category.
3. There was an increase in counseling results before using the dental smart card with the average student knowledge score in the sufficient category before being given the dental smart card stimulus while the average score after being given the stimulus using the dental smart card was in the good category.

Given:

Based on the results and discussion of the research conducted, the following

suggestions can be given:

1. For Dental Health Institutions
It is hoped that this research can be used as guidance and evaluation material in providing information about dental caries using dental smart cards which can support the success of health promotion.
1. For SDN Rejosopinggir Jombang
It is hoped that this research can be used as an evaluation for SDN Rejosopinggir Jombang in providing information related to dental and oral health, especially about dental caries.
2. For Researchers
The results of this research can be used as a reference for future researchers regarding card games such as dental smart cards to increase knowledge about dental caries. This research can be developed with other health promotion media that can increase students' knowledge.

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