



# Knowledge of dental and oral health before and after counseling using quartet cards for elementary school students

Marisa Salsabilah<sup>1\*</sup>, Siti Nurbayani Tauchid<sup>2</sup>

<sup>1,2</sup>Department of Dental Health, Polytechnic Health of Jakarta I, Indonesia

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## ABSTRACT

**Background:** Playing while learning is one of the hobbies among elementary students to increase students' knowledge and motivation of learning, one of them with quartet card game. The material in this game is formed in cards presented in the form of pictures and equipped with descriptions of the pictures. **Objective:** The aim of this study was to describe the knowledge of dental and oral health before and after counseling using quartet card for fourth grade students at SDN Pancoran Mas 01 Depok. **Methods:** This research method is a quasi-experimental study with a total sampling technique of 57 students of class IV. The data collection instrument used was pre and post test questionnaire sheets from previous research which had been modified with a total of 10 questions and quartet card counseling media. **Results:** The results of this study showed that the average value of knowledge before counseling was 65% in the sufficient category, and after counseling was 93% in the good category. And the frequency distribution in the good category is 49.1% to 94.7%, in the sufficient category is 29.8% to 2.3% and in the less category is 21.1% to 0%. **Conclusion:** The results showed that there was an average increase in students' dental and oral health knowledge after counseling by 28% which proved that the quartet card counseling was able to increase students' knowledge.

## INTRODUCTION

The main health problem is oral hygiene. One of the causes of dental problems in children is their ignorance about how to maintain their oral health (Purnama, 2023). Therefore, it is very important for parents to improve their children's oral health literacy to help them avoid dental problems in the future. Using toothpaste, brushing teeth properly and doing it often is one of the best strategies (Kasihani, Purnama, et al., 2021).

The results of the 2018 Basic Health Research stated that around 55.6% of dental and oral problems occurred in children aged 10-14 years. This shows how vulnerable this age group is to oral diseases and requires special care (Risksedas, 2018). Children's dental health affects their growth and development because the condition of deciduous teeth affects the development of permanent teeth (Kasihani, Ngatemi, et al., 2021). In addition, because children are the country's future assets, dental health problems in children will have an impact on their quality of life (Kantohe et al., 2016).

Knowledge of dental and oral health is related to how children behave and learn to maintain their dental and oral health so that it can encourage children to behave well in maintaining and fostering behavior (Pudentiana et al., 2020), one of which is tooth brushing skills which can affect dental and oral health conditions (Purnama et al., 2020).

Playing while learning is an effort to improve children's knowledge and is quite popular among elementary school students. One of them is with educational games that can improve knowledge of dental and oral health such as quartet cards (Widodorini et al., 2018). Quartet card game is a fun way to learn. Because the information is presented on picture cards with captions that help students remember about dental and oral health, this game has become popular among students (Meiliani, 2017).

\*Corresponding author

E-mail addresses: [marisasalsabila96@gmail.com](mailto:marisasalsabila96@gmail.com)

## METHOD

The design of this study is a quasi-experimental study. Sampling using a total sampling technique of 57 students in grade IV. This study aims to determine the knowledge of dental and oral health before and after counseling using quartet card media in grade IV students of SDN Pancoran Mas 01 Depok. The data collection instrument used was a questionnaire sheet consisting of 10 questions. The researcher also used a tool in the form of quartet card media. The research data were processed in the form of frequencies and distributions using tables to describe the research variables and the effect of counseling using quartet card media on dental and oral health knowledge in grade IV elementary school students.

## RESULT

**Table 1.** Frequency distribution of knowledge after dental and oral health counseling with quartet card media

Knowledge	Before		After	
	F	%	F	%
Good	28	49.1	54	94.7
Sufficient	17	29.8	3	5.3
Poor	12	21.1	0	0
<b>Total</b>	<b>57</b>	<b>100</b>	<b>57</b>	<b>100</b>

Table 1 shows that before counseling with quartet card media was conducted on fourth grade students, the majority of 28 students (49.1%) had knowledge about dental and oral health in the good category, 17 students (29.8%) had knowledge in the sufficient category, and 12 students (21.1%) had knowledge in the poor category. Meanwhile, after counseling with quartet card media was conducted on all fourth grade students, the total knowledge about dental and oral health was in the good category, namely 54 students (94.7%) and in the sufficient category, namely 3 students (5.3%) and there were no students in the poor category.

## DISCUSSION

The study conducted on fourth grade students of SDN Pancoran Mas 01 Depok in April 2023 was intended to see the picture of dental and oral health knowledge before and after counseling using the 2023 quartet card media. The criteria for respondent knowledge will be divided into 3, namely good if 76-100% of the answers are correct, sufficient knowledge criteria if 56-75% of the answers are correct, and the criteria for poor knowledge if  $\leq 55\%$  of the answers are correct. Dental and Oral Health Education is all efforts or activities to maintain and increase awareness of dental and oral health. In fourth grade children, dental and oral health education has reached the operational stage, namely the ability to think logically (Hidayat, 2016).

The results of the study on fourth grade students at SDN Pancoran Mas 01 Depok in April 2023 showed that the respondents' knowledge about dental and oral health before counseling using quartet card media mostly had knowledge with good knowledge criteria of 28 students (49.1%), sufficient knowledge criteria of 17 students (29.8%), and with poor criteria of 12 students (21.1%). Meanwhile, for the results of the study after counseling on dental and oral health using quartet card media, most of them had knowledge with good criteria increasing, namely 54 students (94.7%), sufficient knowledge criteria of 3 students (5.3%) and no students with poor knowledge criteria. It can be concluded that there was an increase in knowledge seen from the results of the study before and after counseling using quartet card media on students' knowledge about dental and oral health, where initially students did not know to know. At the time the study was conducted, most students were very interested in using quartet cards as a learning medium, as evidenced by all 57 students being enthusiastic about playing quartet cards.

Research conducted by (Syam & Indriasari, 2018) obtained results that providing education using quartet cards can increase students' knowledge of healthy snacks and improve attitudes. Research conducted by (Na'ima et al., 2014) based on the results of his research stated that the quartet card media meets the criteria for validity and practicality that are suitable for use in learning.

The results of the study at SDN Pancoran Mas 01 Depok are known to be in line with previous studies using quartet card media, namely a greater increase in knowledge than before. This is proven by 57 students who are enthusiastic and actively participate in playing quartet cards, with a time of 30 minutes for each group. This indicates that this quartet card media can develop students' interest and motivation to learn and based on WHO recommendations, grade IV elementary school students are independent in maintaining their dental and oral health because they have entered the age of 10-12 years at that age students are more cooperative than younger age groups.

## CONCLUSION

Based on the research results, it can be concluded that there was an increase in knowledge before dental and oral health counseling using quartet card media.

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