



Busy board media as an effort to increase knowledge caries prevention of early childhood

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ABSTRACT

Background: Oral and dental health is an important component of Health. Dental caries is common especially in children caused by sweet foods, such as chocolate, candy, and cakes, easily sticking to the teeth. To maintain the health of the teeth and mouth by providing counseling in the form of educational games (APE) such as busy board which provides a variety of activities arranged in one board, aims to keep children engaged and busy in the learning process. **Objective:** To describe the analysis of busy board media as an effort to increase knowledge of early childhood. **Method :** is descriptive with a total of 50 respondents using a total sampling. Type of data used is primary data obtained directly by observation using evaluation media busy board pre-test and post-test. The instrument used is busy board and check sheet. **Results:** The results of the study before the counseling with the evaluation of the busy board is good category as many as 41 (82%) respondents, knowledge with sufficient category as many as 8 (16%) respondents, and less knowledge as many as 1 (2%) respondents. After the extension of good category 50 (100%) there is no sufficient category and less (0%). **Conclusion:** There was an increase in knowledge after being given counseling on food to prevent caries and evaluation with a busy board by 18% and none of the respondents had less knowledge category.

INTRODUCTION

Oral health has an important role in maintaining overall body health so that it has an important impact on a person's quality of life (Kamelia, 2020). One of the body parts in the oral cavity is the teeth which have an important function for chewing food. Because teeth are very sensitive, care is needed to maintain dental hygiene and health, thus reducing the risk of dental diseases such as caries (Humayrah et al., 2022).

Based on the results of the Basic Health Research in Indonesia in 2018 that the prevalence of oral health problems in Indonesia reached 57.6% for West Java province has a prevalence of 45.7%. One of them is the early childhood group based on the age of 3-5 years, 36.4% of early childhood have dental caries or cavities. This must be considered in dental care and increasing understanding of the selection of appropriate foods for dental health, especially early age groups that have the highest prevalence of dental caries In Indonesia, early childhood 3-4 years of age consuming sweet foods has a prevalence of 61.27% in West Java province has 63.93%. Consuming healthy foods has a prevalence of 10.7% (Kementerian Kesehatan RI, 2018).

Dental caries is a common oral health problem, especially in children (Purnama, 2022). This occurs because carbohydrate acids damage hard tooth tissue through the intermediary of microorganisms in saliva. This is because sweet foods such as cakes, chocolate, and candy, can be broken down by certain bacteria and produce acid, which can produce plaque so that it has the potential to cause dental caries in children (Nurilawaty et al., 2021). Therefore, it is important for people, especially children, to understand how to choose foods that can prevent dental caries (Setyaningsih & Indra Asmara, 2018).

Food selection for early childhood dental health is very important foods that can nourish teeth, namely eating fresh vegetables and fruits that are rich in water, vitamins, minerals, and fiber can help clean teeth. So that the surface area of plaque can be reduced and ultimately, dental caries can be prevented. Foods such as bengkoang, apple, pear, watermelon, and vegetables such as caisim and carrots can improve the chewing process and increase saliva secretion (Nurilawaty et al., 2021; Nurjannah et al., 2012).

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Efforts can be made to maintain oral health by providing counseling. One of the strategies for improving oral health is counseling, which aims to disseminate information on how to prevent dental caries in early childhood (Erdiyani et al., 2023; Puteri & Emini, 2023). In developing early childhood intelligence, tools are needed that can stimulate thinking skills. One option that can be utilized is learning media, including educational game tools (APE) such as busy boards, which can provide an innovative approach to the learning process (Hasanah et al., 2023).

The busy board learning media is the latest innovation that is currently popular in developed countries, such as in Europe and America. busy board, which comes from English, means “busy board,” where “busy” refers to busy and “board” refers to board. In this study, busy board is used as a learning media that provides various activities organized in one board, aiming to keep children engaged and busy in the process (Kurniawan & Komalasari, 2019).

METHOD

This research uses quasi-experiment with pretest and post test design. This research was conducted in early childhood using the total sampling method, so that the number of samples in this study was 50 children. The research was conducted at PAUDQU Al-Fayyadh Cinere, which is located at Jl Anggrek atas No.26, Rt 2/11, Cinere, Cinere District, Cinere Village, Depok City, West Java. In April 2024.

The type of data used in this study is primary data, data collection is done by calling one child at a time to be observed using a busy board and a checklist sheet as a pre-test and post-test evaluation before counseling and after counseling. The instruments used in the study were busy board and checklist sheet. In this study, the data were analyzed using Microsoft Excel. The stages of data collection carried out by researchers are as follows:

1. The first day, conducting a pre-test for 15 minutes with busy board evaluation media and a checklist sheet before being given counseling.
2. The second day, counseling for 15 minutes with powerpoint. On the third day, conduct counseling again and conduct a post-test after counseling with busy board evaluation media and checklist sheets.
3. On the third day, conduct counseling again and conduct a post-test after counseling with busy board evaluation media and a checklist sheet.



Figure 1. Busy Board Design

RESULT

Table 1. Distribution of knowledge criteria before counseling with Busy Board Media

<i>Busy Board</i>	Responden (n)	Presentase (%)
Good	41	82
Sufficient	8	16
Less	1	2
Total	50	100

Based on the data listed in Table 1, The results showed that out of 50 students who became respondents, the results obtained in the good category were 41 (82%) respondents, knowledge with sufficient categories as many as 8 (16%) respondents, and less knowledge as much as 1 (2%) respondent.

Table 2. Distribution of knowledge after counseling with Busy Board Media

<i>Busy Board</i>	Responden (n)	Presentase (%)
Good	50	100
Sufficient	0	0
Less	0	0
Total	50	100

Table 2, The results showed that of the 50 students who were respondents, after being given counseling with busy board evaluation, all students had an increase of 50 (100%).

DISCUSSION

Dental health counseling is a specially designed effort with specific objectives to create a situation that encourages individuals or community groups to change old habits that are detrimental to dental health into habits that are better for their dental health. This program is part of a dental health initiative that aims to address dental health problems in Indonesia.

The results of research and data analysis regarding the description of knowledge after counseling on foods to prevent caries and evaluation with a busy board in early childhood at Paudqu AL-Fayyadh Cinere in 2024 obtained data as many as 50 children who became research samples. The table shows that of the total sample of 50 respondents, the results showed that knowledge before counseling on foods to prevent caries and evaluation with a busy board with the highest percentage was in the good category as many as 41 children (82%) and the lowest percentage was in the sufficient category as many as 8 children (16%). Whereas table 4.2 shows knowledge after counseling on foods to prevent caries and evaluation with a busy board with the highest percentage in the good category as many as 50 children (100%) an increase of 18%. This shows that children's knowledge about foods to prevent caries has increased after counseling and evaluation using a busy board.

These results are in line with research conducted by (Humayrah et al., 2022) with the title Education on Food Selection to Prevent Dental Caries with UNAGI Media (Nutritional Ladder Snakes) at SDI Karya Mukti, Citeureup, Bogor, West Java which found that the level of knowledge before counseling was in the good category of 61.1% and after counseling the results were obtained in the good category 88.9%. There was an increase in knowledge after counseling by 27.8%.

Another study by (Ngatemi et al., 2022) which obtained the average results after being given 30% counseling and after being given counseling increased to 70%. There was an increase in knowledge before and after counseling by 40%. This study showed a significant increase in knowledge about cariogenic foods, confirming that interactive and fun counseling media can be more effective in increasing knowledge. This counseling helps children choose healthy and unhealthy foods, which is important for the prevention of dental caries.

The results of research conducted by (Kurniawan & Komalasari, 2019) based on the results of the average value before being given the pre-test was 9.9 while the average value after being given the post-test treatment was 17.8. From the results of this study, it can be concluded that the use of busy board as an educational game tool to increase children's knowledge. These results are in line with research at PAUDQU

Al-Fayyadh Cinere, which shows that the use of busy boards is not only effective for improving fine motor skills but also children's knowledge about dental health.

Knowledge increases because respondents prefer to play because the game is a fun thing to do. So that it can achieve goals and can achieve the meaning of learning through experience and focus students as learning subjects. Education can be more effective by using games because they can be educational, applicable and not boring (Putri et al., 2024; Rachmawati, 2019).

According to (Himmamie, 2019), learning and guiding interactions with children do not always have to come from direct experience. Instead, it can start with the type of experience that matches the desires and abilities of the group of children, while considering their learning conditions. Direct experience provides information and insights through the five senses such as sight, hearing, feeling, smell and touch. Innovation in game-based learning media can be a solution to increase the enthusiasm for learning of elementary school students that can be applied in everyday life.

Educational game tools (ETAs), such as busy boards, provide a variety of activities organized on one board. The purpose of learning media is to keep children engaged and busy during the learning process. Using busy board as an evaluation tool can be a creative solution to increase the effectiveness of such counseling. Busy boards have many benefits, such as improving their understanding of the material presented, and providing opportunities for children to actively participate in the learning process. Thus, the combination of counseling and evaluation with a busy board can increase the effectiveness of efforts to prevent caries (Yuliasari et al., 2020). From the results of this study it can be concluded that increasing knowledge through counseling with attractive media for child respondents (Powerpoint) and busy board games can be a solution in preventing dental caries. Evaluation using busy board has proven its effectiveness in increasing understanding, especially in children.

CONCLUSION

Based on the results of research on the description of caries prevention knowledge in early childhood with busy board media as an effort to increase knowledge of early childhood dental caries prevention, it proves that respondents have increased.

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