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**Knowledge of Parents of Grade 4 Students and All Teachers about Caries at SDN
Banyu 2 Urip Surabaya**

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ABSTRACT

Dental caries is a characteristic of dental tissue disease characterized by damage to the tooth surface that spreads towards the pulp. School children who have dental caries will experience decreased chewing ability and digestive disorders so that their growth is not optimal. This condition will certainly cause children to skip school more often and interfere with their ability to focus on learning. The problem in this study is the high prevalence of dental caries in grade 4 students of SDN Banyu Urip 2, Sawahan District, Surabaya City. So the purpose of this study is to determine the knowledge of parents of grade 4 students and all teachers about caries at SDN Banyu Urip 2 Surabaya. Descriptive research targeting parents of grade 4 students and all teachers of SDN Banyu Urip 2 Surabaya, the study was conducted from August 2023 to April 2024, the method of data collection by filling out a questionnaire using an instrument in the form of a questionnaire sheet. The data collection procedure was by visiting and asking permission from the principal of SDN Banyu Urip 2, giving questionnaires to parents and teachers, conveying the purpose of giving the questionnaires, providing instructions for filling in and accompanying the process of filling in the questionnaires, and respondents collecting the completed questionnaires. Data analysis using the average knowledge results presented in the form of percentages and tables. This study shows that the knowledge of parents of grade 4 students is in the sufficient category, while the knowledge of all teachers at SDN Banyu Urip 2 Surabaya is classified as good.

Keywords: Knowledge, Dental caries, Students, Parents, Teachers

INTRODUCTION

Dental caries is a disease characterized by damage to tooth tissue that starts from the surface and spreads towards the pulp. In children, tooth decay can be caused by several factors, including the frequency of brushing which affects oral hygiene, as well as the consumption of cariogenic foods, as well as factors in the mouth that affect how dental caries develops, including saliva acidity, tooth morphology, jaw position, and tooth structure (Rehena, 2020).

Children who have cavities can experience decreased chewing ability and digestive disorders, so that their growth is not ideal. This will certainly reduce the number of children who go to school,

interfere with their ability to focus while studying, affect food intake and appetite. This affects their nutritional status and ultimately causes disorders in physical growth (Rehena, 2020).

Children aged between 6 and 14 years are at a crucial age because they are going through the stage of changing their teeth, from baby teeth to permanent teeth. In addition, children at this age usually like to snack on food and drinks according to their wishes (Rehena, 2020).

In the age groups of 5 to 9 years (54.0%) and 10 to 14 years (41.4%), there was a significant increase in the prevalence of dental caries in 2018. This impact shows that the teeth of school-age children in Indonesia have not been well maintained

(Kementrian, 2018). This finding shows that caries is still very high in East Java.

The prevalence of dental caries in children aged 10-14 years in East Java Province is 41.4% (Riskasdas, 2018). Based on the initial examination of the sample conducted by researchers on 24 grade 4 students of SDN Banyu Urip 2 Surabaya, it was found that the dental caries status had a prevalence of dental caries of 87.5%.

One of the factors that greatly determines the implementation of health programs, especially dental and oral health, is the role of parents. Children's oral and dental health standards increase when parents support oral and dental health service programs. This support is very beneficial for health workers in implementing planned programs (Manbait et al., 2019). In addition to the role of parents, teachers are the best supporters in educational activities because they know how to teach and inspire children in class (Damsy et al., 2020).

Parental knowledge greatly influences whether or not they support or discourage children's oral hygiene habits. This knowledge can be acquired spontaneously or intentionally, either through natural experiences or through planned education. Parents who lack oral health education will put their children at risk of having poor oral hygiene (Niken et al., 2021).

Parents need to be informed about their children's dental and oral health to ensure their teeth grow and develop properly. A number of factors can influence parents' knowledge and ability to maintain oral health, including age, education, socioeconomic status, experience, media coverage, and the surrounding environment (Ramadhany et al., 2021).

Currently, many cases of caries are caused by parents' ignorance of what foods and dental care should be given to their children, especially those who are still in school, to prevent cavities. The role of

parenting patterns is very significant in changing habits that are detrimental to children's health. Children consistently observe, evaluate, and imitate the attitudes, behaviors, and habits of their parents. Whether intentionally or not, these traits are then absorbed and form new habits in children (Ramadhany et al., 2021).

It is also important for teachers to play a role in helping students maintain their dental health. Teachers are the best promoters in educational activities because they know how to teach and inspire students in the classroom. Teachers are professionals who have the main responsibility to teach, guide, direct, train, assess, and evaluate students. Thus, teachers are expected to motivate students to maintain their dental health and reduce the prevalence of dental caries among school-age children (Kholil, 2021).

To improve the health status of students, it is important for teachers to understand their responsibilities. If teachers neglect to motivate their students regarding their dental and oral health, it is likely to cause high caries in students. Efforts have been made to expand the role of teachers in emergency response to reduce dental and oral pain through this community service. Support and guidance for UKGS instructors are expected to enable them to take part in dealing with emergency conditions in schools (Purnama et al., 2021).

In addition to acting as UKGS drivers and educators in fostered schools, teachers also play an important role in handling health problems in the classroom as first aid agents. Teachers also have a role in helping health workers collect data or screening, and they must be the first to refer students in emergencies if they have complaints related to teeth and mouth (Purnama et al., 2021).

A teacher's task can be improved by increasing his/her knowledge about dental and oral health, by participating in the UKGS program at school. If the teacher already has good knowledge about dental

and oral health, the teacher can probably tell students about foods that contain sugar that can cause caries, cause toothache and make it difficult for them to focus in class (Triadi, 2023).

This study aims to determine the knowledge of parents of grade 4 students and all teachers about caries at SDN Banyu Urip 2 Surabaya.

RESEARCH METHOD

This study has received approval from the Health Research Ethics Commission of the Surabaya Health Polytechnic No. EA/2417/KEPK-Poltekkes_Sby/V/2024. This study uses a descriptive research method. The targets of this study were parents of grade 4 students and all teachers at SDN Banyu Urip 2 Surabaya, totaling 24 parents and 20 teachers. In this study, the instrument used was a questionnaire sheet and the data collection method was by filling out the questionnaire. Data analysis using the average knowledge results as a percentage and presented in table form.

RESULT AND DISCUSSION

Table 1. Distribution of Knowledge Measurements of Parents of Grade 4 Students About Caries at SDN Banyu Urip 2 Surabaya

Category	Frequency (n)	Persentase (%)
Parental Knowledge		
Good	7	29,1
Enough	11	45,8
Less	6	25
Total	24	100

Based on table 1, the results of the study show that parental knowledge about caries is mostly included in the sufficient classification with a percentage of 45.8%. Relevant to the study (Arsad et al., 2023) that the results of the study show that parental knowledge is sufficient. Parents who still have a sufficient level of knowledge are likely to have a lack of

understanding of dental caries in children and parents who have good knowledge are obtained because of personal experience and ease in obtaining information about dental care. Meanwhile, parents who have insufficient knowledge are due to a lack of enthusiasm in maintaining children's dental health (Arsad et al., 2023).

The average respondent according to the researcher has a high school education, so it can be ascertained that education is a supporting factor for knowledge. High parental knowledge will manifest good attitudes and actions. Low knowledge possessed by parents in maintaining the cleanliness of their children's teeth and mouths will result in poor dental caries index results (Rosanti et al., 2020)

Respondent characteristics show that parents are mostly in the age range of 25–44 years. Parents in this age range can still be productive while raising their children well. One of the things that affects parents' ability to fulfill their responsibilities as parents is their age. The parenting role carried out by parents will be less than ideal if they are too young or too old (Kurniawati et al., 2022).

In addition to age factors, the risk of children getting tooth decay can also be influenced by the parents' work conditions. Parents' time is taken up by their work, which sometimes affects family life. There will not be much time for busy parents to get information, which will reduce their level of knowledge acquisition. They also will not have time to monitor or supervise their children (Kurniawati et al., 2022).

Because housewives are the majority of research respondents, it is possible that respondents know about cavities from the internet and health workers. This is further supported by the fact that they get more information about cavities through cellphones, especially from social media or the internet. In this case, it can be said that knowledge about dental health can be obtained from various sources other than the knowledge obtained during the education process (Pratamawari et al.,

2023).

It can be concluded that the results of the study of parental knowledge are in the sufficient category, but have children with high dental caries. This could be due to other factors that contribute to the high rate of dental caries in children involving several important aspects. According to H.L. Blum in (Notoatmodjo, 2018), there are four main elements that influence a person's health status: environment, behavior, access to health services, and genetic factors

Table 2. Distribution of Knowledge Measurements of All Teachers About Caries at SDN Banyu Urip 2 Surabaya

Category	Frequency (n)	Persentase (%)
Teachers Knowledge		
Good	12	60
Enough	5	25
Less	3	15
Total	20	100

Based on table 2, the results of the study show that the knowledge of all teachers about caries is mostly included in the good classification with a percentage of 60%. Teachers play an important role in the lives of their students because teachers are tasked with providing the direction needed by children to obtain the best education. Increasing teachers' understanding of dental and oral health will help teachers in conveying dental and oral health information to their students. If teachers do not have adequate understanding of dental and oral health, then teachers will not be able to provide good knowledge to their students (Yanti *et al.*, 2020).

In an effort to stop dental health problems such as caries that often attack school-age children due to the many cariogenic foods served there, teachers can help stop the occurrence of these problems. Since most students will do what their teachers say and follow their directions, teachers can be information providers and

role models for their students in developing and implementing dental and oral health programs (Yanti *et al.*, 2020).

UKGS participant teachers as recipients of materials and implementers can become mentors, educators, and role models for their students by providing knowledge such as how to maintain dental and oral health. UKGS implementers can utilize the assistance of student doctors who can be reminders of the previously presented materials so as to foster general awareness of dental and oral health in the classroom (Novita *et al.*, 2019).

Teachers who have good knowledge because their surrounding environment facilitates access to information about oral and dental health, with a focus on dental caries. This knowledge can come from counseling, mass media, or during UKGS activities at school, and a high level of teacher education will also manifest good attitudes and actions.

So it can be concluded that the results of the study show that teacher knowledge is in the good category, but has students with high dental caries. This could be due to other factors that cause dental caries in children which are still relatively high. This could happen because teachers do not provide enough information and do not remind their students about maintaining dental and oral health from what they get from health workers, thus causing dental caries in students at SDN Banyu Urip 2 Surabaya to still be high. This could also happen because of factors from the students themselves who behave poorly in maintaining dental and oral health even though they already have knowledge about how to maintain dental health that they have obtained during the UKGS program.

CONCLUSION AND RECOMMENDATION

After conducting research on the knowledge of parents of grade 4 students and teachers of SDN Banyu Urip 2 Surabaya about dental caries, the conclusions and suggestions of this

research are as follows:

1. Knowledge about caries in parents of grade 4 students of SDN Banyu Urip 2 Surabaya is included in the sufficient category.
2. Knowledge about caries in all teachers of SDN Banyu Urip 2 Surabaya is included in the good category.

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