



Description of dental caries in school-age children at HKBP elementary school, Padang Bulan, Medan, 2022

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ABSTRACT

Dental caries or cavities is a disease of the hard tissues of the teeth (enamel, dentin, and cementum), which is caused by the activity of micro-organisms in fermentable carbohydrates. Dental caries is characterized by demineralization of the hard tissues of the teeth. The purpose of this study is to describe the incidence of dental caries in school-age children at HKBP Padang Bulan Medan Elementary School 2022. The type of research used is a descriptive research design. The sample in this study are 140 respondents. The sampling technique used is the Total Sampling technique. The results of the study on the incidence of dental caries in school-aged children at the Padang Bulan HKBP Elementary School 2022 showed that the respondents' dental caries is in the category of having dental caries as many as 78 students (55.7%). It is hoped that the results of this study will serve as educational motivational material on the prevention of dental caries and how to treat dental caries in school-age children.

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1. INTRODUCTION

Dental and oral health problems can occur in both adults and children. However, children are more susceptible to caries problems, especially elementary school children. In general, school-age children are at higher risk of experiencing tooth decay because the level of awareness to maintain dental and oral health is still relatively low which is also influenced by low knowledge about dental and oral health (Mukhbitin, 2018).

Dental health in children is of particular concern in today's modern era (Rahena, 2020). The problem of caries in school children is quite dangerous, namely porous, caries, or even broken teeth, there are lesions around the mouth, holes in the teeth, black spots on the surface of the teeth, damage to the neck teeth. pain when food enters, will cause pain to the head, pain occurs at night, makes children lose their chewing power and affects digestion. In addition, the frequency of attendance at school is related to decreased concentration in learning, decreased appetite and food intake which affects nutritional status, and ultimately results in impaired physical development of children (Afrinis et al., 2020). In general, school-age children are at high risk of developing dental caries, because children at this age usually like to eat random snacks (Rahena, 2020).

Data from the Indonesian Ministry of Health say that the prevalence of dental caries in Indonesia is 90.05%, while in Jakarta 90% of children experience cavities and 80% suffer from gum disease. Meanwhile, according to Handayani & Safitri, (2016) that the problem of dental treatment in

Indonesia is still very much needed. Residents in North Sumatra Province had dental and oral health problems of 43.7% and 42.9% had cavities, while in the city of Medan 35.28% of children had cavities and 39.15 had damaged teeth. At the age of 10-14 years, 39.95 had cavities and 41.66 had broken teeth (Saragih et al., 2021).

Dental caries can happen to everyone regardless of age, nation or economic situation. In West Indian countries 72%, Saudi Arabia 83% (Pandey et al., 2021), and Asia including Indonesia, it turns out that 80% -95% of children under the age of 18 are affected by dental caries (Yasin & Hayat, 2021). Ministry of Health (2018), the prevalence of dental caries in Indonesia is 88.8% with the prevalence of root caries being 56.6%. The prevalence of dental caries tends to be high (above 70%) in all age groups. Children aged 5-9 years have a prevalence rate of 92.6%.

2. RESEARCH METHOD

This study uses a descriptive design which aims to describe the incidence of dental caries in school-age children at Padang Bulan Medan HKBP Elementary School in 2022. Data analysis is a very important part of achieving the main research objectives, namely answering research questions that reveal phenomena (Nursalam, 2020). Data analysis is a very important part of achieving the main research objectives, namely answering research questions that reveal phenomena (Nursalam, 2020). Analisa univariat bertujuan untuk menjelaskan atau mendeskripsikan karakteristik setiap variabel penelitian analisa ini hanya menghasilkan distribusi frekuensi dan persentasi dari setiap variabel (Polit&Beck, 2012). Pada skripsi ini menggunakan analisa univariat untuk mengidentifikasi variabel independen yaitu gambaran kejadian karies gigi pada anak usia sekolah di sekolah dasar HKBP padang bulan tahun 2022. Univariate analysis aims to explain or describe the characteristics of each research variable. This analysis only produces the frequency distribution and percentage of each variable (Polit&beck,2012).

This thesis uses univariate analysis to identify the independent variable, namely the description of the incidence of dental caries in school-age children at HKBP PADANG BULAN 2022 elementary school

3. RESULTS AND DISCUSSIONS

The following is the distribution of demographic data on the incidence of dental caries in school children

Table 1 Frequency Distribution of Demographic Data and Dental Caries Characteristics of School-Age Children at HKBP Padang Bulan Elementary School in 2022 (n=140)

No	Characteristics	Frequency (f)	Percent%
1	Usia		
	6	28	20.0
	7	24	17.1
	8	22	15.7
	9	20	14.3
	10	14	10.0
	11	17	12.1
	12	15	10.7
	Total	140	100
2	Gender		
	Man	80	57.1
	Woman	60	42.9
	Total	140	100
3	Class 1		
	dental caries	19	67.9
	no dental caries	9	32.1
	Total	28	100
4	Class 2		
	dental caries	15	62.5

No	Characteristics	Frequency (f)	Percent%
	no dental caries	9	37.5
	Total	24	100
5	Class 3		
	dental caries	10	45.5
	no dental caries	12	54.5
	Total	22	100
6	Kelas 4		
	dental caries	17	50.5
	no dental caries	17	50.5
	Total	34	100
7	Kelas 5		
	dental caries	17	53.1
	no dental caries	15	46.9
	Total	32	100

Table 1.1 Based on the age frequency distribution, it was found that 28 students (20.%) were 6 years old, 24 students (17.1%) 7 years old, 22 students 8 years old (15.7), 9 years old 20 students (14.3) %, 11 year olds were 17 students (12.1%), 12 year olds were 15 students (10.7%), and 10 year olds were 14 students (10%). Based on gender, it was found that the male respondents were 80 students (57.1%), and the female gender minority were 60 students (42.1%). The results of observations of dental caries in school-age children showed that in class 1 there were 19 students (67.9%) of dental caries and 9 students (32.1%) did not have dental caries, in class 2 there were 15 students (62.5%) and no dental caries. there were 9 students (37.5%) dental caries, in class 3 there were 10 students (45.5%) dental caries and 12 students (54.5%) did not have dental caries, in class 4 there were 17 students (50.5%) dental caries and no there were 17 students (50.5%) of dental caries, and in grade 5 there were 17 students (53.1%) of dental caries and 15 students (46.9%) did not have dental caries.

Table 2. Frequency Distribution of Total Dental Caries in Children at HKBP Padang Bulan Medan Elementary School in 2022

Karies Gigi	Frekuensi (f)	Persentase (%)
having dental caries	78	55.7
no dental caries	62	44.3
Total	140	100

Based on table 1.2 of the frequency distribution, the results of observations of dental caries in school-age children showed that the respondents' dental caries were in the category of having dental caries as many as 78 students (55.7%) and there were no dental caries as many as 62 (44.3%).

Based on the results obtained from observations at HKBP elementary school Padang Bulan Medan, it is known that the number of school-age children mostly experienced dental caries, namely 78 students (55.7%) and 62 students (44.3%) who did not experience dental caries. From the findings of the researchers, it was found that lesions around the mouth were found in 7 students (5%), cavities in the teeth were found in 98 students (70%), Black spots on the surface of the teeth were found by 13 students (80.7%), Damage to the neck of the teeth was obtained by 59 students (42.1%), Inflammation around the teeth was obtained by 60 students (42.9%), Pain in the teeth when eating was obtained by 59 students (42.1%) , toothache to the head was obtained by 5 students (3.6%), toothache at night was obtained by 80 students (57.1%).

4. CONCLUSION

From the results of research that has been conducted on the Description of Dental Caries Incidence in School-Age Children at HKBP Padang Bulan Elementary School in 2022. Based on the results of

research on the description of the incidence of dental caries in school-age children at HKBP Padang Bulan Elementary School Medan in 2022, it can be concluded that 78 students (55.7%) at HKBP Padang Bulan Elementary School experienced dental caries. For future researchers, namely the influence of clean and healthy living behavior on dental caries in school children

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