

*THE 8TH INTERNATIONAL SYMPOSIUM OF PUBLIC HEALTH 2024***DENTAL CARIES HISTORY FROM THE PERSPECTIVE OF ORAL AND DENTAL HEALTH HABITS AMONG RESIDENTS OF JATI BARU VILLAGE, ASTAMBUL DISTRICT, BANJAR REGENCY****Sri Nuryati^{1*}, Bunga Nurwati¹, Isnawati¹**¹Dental Health Department, Health Polytechnic, Ministry of Health, Banjarmasin, Indonesia

*Sri Nuryati:08125122960; lintangzidane@gmail.com

ABSTRACT

Background: The proportion of dental decay problems in Banjar Regency is 43.34%. When experiencing dental and oral problems, most residents treat themselves (49.3%), and only a few seek treatment from a dentist (13.88%) or a dental nurse (14%). This study aims to obtain a description of the history of dental caries and how the dental and oral health habits are in the residents of Jati Baru Village, Astambul District, Banjar Regency. **Methods:** This research method is a descriptive study with a cross sectional approach. The population is all residents of Jati Baru Village, aged 12 - 36 years. Sampling was carried out by Purposive Sampling, and a sample of 95 people was obtained. Data collection was carried out by caries examination and filling out a questionnaire. **Results and Discussion:** The results of the study showed that almost all residents of Jati Baru Village suffered from dental caries (96.84%), with a high history of dental caries (DMF-T) (55.8%). Most of the population has poor tooth brushing habits (88.4%), poor eating habits (69.5%) and poor regular dental check-up habits (92.6%). Cross-tabulation shows that respondents with poor tooth brushing habits mostly have a history of high and very high dental caries (58.3%). Respondents with poor eating habits mostly have high and very high dental caries (62.1%), while respondents who do not have regular dental check-ups every 6 months have a history of high and very high dental caries (56.8%). **Conclusion:** Based on this study, it can be concluded that the dental and oral health habits of the residents of Jati Baru Village, Astambul District, Banjar Regency are still poor, and have a history of high dental caries.

Keywords: habits, history of dental caries

1. Introduction

In Indonesia, the prevalence of dental caries in Indonesia was 45.3% in 2018. In South Kalimantan, the percentage of dental and oral health problems was around 59.6%, with cavities or damaged teeth reaching 46.9% of cases. Regarding the habit of brushing teeth, as many as 94.7% of Indonesians brush their teeth every day. However, only 2.8% of them have brushed their teeth properly. Although 52.41% of the population of South Kalimantan have dental health problems, only 5.27% of them receive medical treatment. Only 1.38% of the population of South Kalimantan brush their teeth properly, compared to 96.04% of the population who do it every day. Banjar Regency is one of the areas in the South Kalimantan Province. The proportion of damaged/cavity/painful teeth in Banjar Regency is 43.34%. When experiencing dental and oral problems, most residents treat themselves (49.3%), and only a few seek treatment from a dentist (13.88%) or a dental nurse (14%). When viewed from the frequency of residents seeking treatment from dental health workers, it was found that 96.25% had never been treated (Risksedas, 2018).

Jati Baru Village is one of the villages in Astambul District, Banjar Regency, which lives on the banks of the river and most of the people work as traders and farmers. Most people in Jati Baru Village use river water for their daily needs such as bathing and brushing their teeth, drinking, cooking, washing clothes and washing household items.

2. Literature Review

Many factors are related to the history of dental caries. Behavior on how to maintain dental health, such as the habit of brushing teeth, how and when to brush teeth and consumption of cariogenic foods are related to dental caries (Junarti & Santik, 2017) (Meilarisa et al., 2024). Regular dental check-ups with a dentist are also related to dental and oral problems. Those who never come to the dentist for dental check-ups have a higher chance of experiencing toothache complaints (Mubasyiroh, 2018).

3. Research Method

This study is a descriptive study with a Cross Sectional approach. This study aims to identify the history of dental caries with dental and oral health habits, such as the habit of brushing teeth, consuming cariogenic foods and the habit of checking teeth to a dentist or dental nurse. The population of this study was the entire Jati Baru Village Community, Astambul District, Banjar Regency who were over 12 years old. Determination of the sample size using the Slovin Formula and Purposive Sampling, which obtained a sample of 95 people. The dependent variable is the history of dental caries, the data is obtained by examining the DMF-T Index (Decay, Missing, Filling Teeth). While the independent variables, namely the habit of brushing teeth, the habit of consuming cariogenic foods and the habit of checking teeth regularly, are obtained through interviews using questionnaires. Data are processed in frequency tabulation and cross tabulation. This chapter describes the methods used in the study, the population, sample, sampling techniques, sources and methods of data collection, the operationalization of variables and data analysis methods. For articles that are not in the form of the research results can contain explanations about the subject to be the focus of discussion (e.g. green purchase behavior phenomenon in Indonesia plastic pay policy) as well as the measures proposed to resolve the problems faced.

4. Results and Discussion

The results of the study on the history of dental caries in the residents of Jati Baru Village, Astambul District, Banjar Regency, are presented in the table below.

Table 1. Frequency of Dental Caries History in Jati Baru Village Residents

Category Dental Caries History	Frequency (N)	Percentage (%)
Very Low	2	2.1
Low	13	13.7
Medium	26	27.4
High	19	20
Very High	35	36.8
Total	95	100

Source: Primary Data

From the table above, it can be seen that most of the residents of Jati Baru Village have a very high history of dental caries (36.8%). When added up, the largest percentage of the population's dental caries history is in the high and very high categories (56.8%).

Table 2. Cross Tabulation of Toothbrushing Habits with Dental Caries History Jati Baru Village Residents

Toothbrushing Habits	Dental Caries History					Total (%)
	Very Low (%)	Low (%)	Medium (%)	High (%)	Very High (%)	
Good	1 (9.1)	4 (36.4)	1 (9.1)	2 (18.2)	3 (27.3)	11 (100)
Poor	1 (1.2)	9 (10.7)	25 (29.8)	17 (20.2)	32 (38.1)	84 (100)
Total	2 (2.1)	13 (12.7)	26 (27.4)	19 (20)	35 (36.8)	95 (100)

Source: Primary Data

Table 2 shows that those who have good toothbrushing habits, most have a low history of dental caries (36.4%). While those with poor brushing habits mostly have a very high history of dental caries (38.1%).

Table 3. Cross Tabulation of Cariogenic Food Consumption Habits with Dental Caries History of Jati Baru Village Residents

Cariogenic Food Consumption Habits	Dental Caries History					Total (%)
	Very Low (%)	Low (%)	Medium (%)	High (%)	Very High (%)	
Good	2 (6.9)	4 (13.8)	10 (34.5)	5 (17.2)	8 (27.6)	29 (100)
Poor	0 (0)	9 (13.6)	16 (24.2)	14 (21.2)	27 (40.9)	66 (100)
Total	2 (2.1)	13 (13.7)	26 (27.4)	19 (20)	35 (36.8)	95 (100)

Source: Primary Data

The table above illustrates that residents who have good cariogenic food consumption habits, most of them have a history of moderate dental caries (34.5%). But those who have poor cariogenic food consumption habits, the most have a very high history of dental caries (40.9%).

Table 4 below shows that those who routinely check their teeth, most have a very high history of dental caries (57.1%). Likewise, those who are not good at checking their teeth regularly, most of them also have a very high history of dental caries (35.2%).

Table 4. Cross Tabulation of Routine Dental Check-up Habits with History of Dental Caries Residents of Jati Baru Village

Routine Dental Check-up Habits	Dental Caries History					Total (%)
	Very Low (%)	Low (%)	Medium (%)	High (%)	Very High (%)	
Good	0 (0)	2 (28.6)	1 (14.3)	0 (0)	4 (57.1)	7 (100)
Poor	2 (2.3)	11 (12.5)	25 (28.4)	19 (21.6)	31 (35.2)	88 (100)
Total	2 (2.1)	13 (13.7)	26 (27.4)	19 (20)	35 (36.8)	95 (100)

Source: Primary Data

The results of the study showed that most of the residents of Jati Baru Village have a high history of dental caries. People who live on riverbanks and still use rivers as a water source tend to have a risk of experiencing dental caries. Jati Baru Village is an area where residents still use the Martapura River as a source of water for their daily needs. Research by Syahputri on the banks of the Martapura River showed that there was a relationship between consumption of Martapura River water and the incidence of dental caries in elementary school children in Martapura and Banjarmasin (Syahputri et al., 2023). Other studies also confirm that there is a relationship between

drinking water consumption and dental caries (Suratri et al., 2018), and with a history of dental caries (Utami et al., 2022). The habits of Jati Baru residents related to dental health, such as the habit of brushing their teeth, the habit of consuming cariogenic foods and the habit of regular dental check-ups, most of them still have poor habits. Such as the results of the 2018 Basic Health Research, that most of the Indonesian population does not have good and correct tooth brushing habits. Almost all Indonesians only brush their teeth every day, but have not brushed their teeth properly (Riskesdas, 2018). Other studies say there is a relationship between the habit of brushing teeth and tooth decay. It even has a negative correlation, which means that the better the habit of brushing teeth, the lower the incidence of tooth decay (Darmayanti et al., 2022). The results of the journal review also stated that the habit of brushing teeth has a greater influence on the history of tooth decay than drinking water consumption patterns (Ardiyanti et al., 2022). Consumption of cariogenic foods is also closely related to the history of tooth decay. Many studies have analyzed and tested that there is a close relationship between the habit of consuming cariogenic foods and the incidence of tooth decay (Sirat et al., 2017), (Mansyur, 2019), (Andayasari & Anorital, 2019), (Rahayu, 2021), (Hidaya et al., 2023). Even the lower the frequency of cariogenic food consumption, the lower the risk of dental caries (Farizah et al., 2021).

The habit of checking teeth regularly has not become a positive behavior in Indonesia. Even those who are sick, many still do not access health services. In fact, those who have never come to the dentist for a dental check-up have a higher chance of experiencing toothache complaints (Mubasyiroh, 2018).

Bad behavior usually starts from low knowledge. Health knowledge is related to health status. Children who have low knowledge about brushing their teeth tend to be at risk of experiencing dental caries (Rahmawati & Nuryati, 2023). To avoid early tooth decay in children, the role of parents and schools is highly expected. School-age children can be given education about caring for dental and oral health by brushing their teeth twice a day, after breakfast and before going to bed, and must routinely check their teeth with a dentist every 6 months. So if this positive behavior has been introduced from an early age, it is hoped that it can reduce the incidence of dental caries in children and in adulthood. (Pehko, 2020).

5. Conclusion and Implications

The conclusion of this study is that most of the residents of Jati Baru Village, Astambul District, Banjar Regency have a very high history of dental caries, with poor habits of brushing teeth, consuming cariogenic foods and having regular dental check-ups.

So as a suggestion to improve this situation, it is necessary to increase knowledge for early childhood and parents as companions, about the importance of dental and oral care from health workers by involving the community such as school teachers and health cadres

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So as a suggestion to improve this situation, it is necessary to increase knowledge for early childhood and parents as companions, about the importance of dental and oral care from health workers by involving the community such as school teachers and health cadres. This chapter concludes the article as a whole, as well as the implications of the results of research or problem solving. Implications of the study may be implications for theory and managerial implications. Suggestions for future research can be expressed by the author in this chapter.

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