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## The act of toothache treatment-seeking for dental caries of pendalungan jember tribe mothers

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### Abstract

The act of seeking treatment for toothache has an effect on dental caries. Improper treatment of dental caries will cause caries to get worse and have a very negative impact on general health and quality of life. The Pentalungan tribe is a tribe formed from a combination of two cultures, namely Javanese and Madurese, the majority of which live in the villages of Jember Regency. Identify and analyze the effect of seeking toothache treatment on the dental caries of the Pentalungan mothers. Analytical observational research with a cross sectional approach in Sukojembar Village, Dusun Krajan Timur, Tegal Batu, and Leces, in Jelbuk District, Jember Regency. The population were women from the Pentalungan tribe with purposive sampling of 386 respondents. The research variables were seeking treatment for toothache (using a questionnaire) and dental caries (using the DMF-T index). The research data were tabulated and tested for descriptive statistics and ordinal regression. The effect of seeking treatment for toothache on dental caries resulted in a significance of 0.029 ( $p < 0.05$ ). There is an impact of seeking treatment for toothache on the dental caries of the Pentalungan mothers.

**Keywords:** Dental caries, mothers' dental, seeking treatment for toothache

### Introduction

Dental health is frequently neglected. Untreated dental caries cause caries condition gets worse<sup>[1]</sup>. Health Base Research (Riskesdas) in 2018 delivered the main problem of oral health is caries and periodontal disease with a prevalence rate of 80%<sup>[2]</sup>. People living in rural areas are often associated with lower levels of knowledge and poor health service utilization, limited access, and cost will influence the act of seeking toothache treatment<sup>[3]</sup>.

Dental caries problem is greatly influenced by the act of seeking treatment. Around 95, 5% population of Indonesian in the past year never seek treatment/examination from a dental professional. As many as 42.2% of Indonesians prefer to seek self-medication rather than visit a dentist<sup>2</sup>. The search for treatment includes traditional treatment, alternative medicine, and taking over-the-counter medicines<sup>[4]</sup>. Improper treatment seeking can increase the severity of dental caries<sup>[5, 6]</sup>. Severe caries are strongly impactful on general health and the quality of life<sup>[7, 8]</sup>

Pentalungan tribe formed from a fusion of Javanese and Madurese cultures. The majority of the Pentalungan tribe people live in villages that lack education and economic condition<sup>[9]</sup>. The aim of this research is to identify and analyze the influence of the treatment-seeking act of toothache on mothers' caries of the Pentalungan tribe in Jember.

### Materials and Methods

Analytical observational research with a cross-sectional approach on the Pentalungan community of Sukojembar Village, Jelbuk Sub-district, Jember Regency. The population of the research is mothers of the Pentalungan tribe as many as 1529 respondents. The collecting sample by purposive sampling was as many as 386 respondents using the Slovin formula<sup>[10]</sup>.

The research variable is the act of treatment-seeking for toothache and dental caries. The variable of the treatment-seeking act of toothache using a questionnaire as a measuring tool with the true (visiting the dentist) and false (left alone, taking stall medicine, massaging or drinking traditional herbs) as the categories.

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The variable of dental caries is measured using the DMF-T index with 5 categories that is very high, high, medium, low, and very low [11]. The tools and materials used are questionnaires, a dental base tool, hands-on, and a mask. The result of the research data was tabulated and tested by ordinal regression test to analyze the influence of the treatment-seeking act of toothache on dental caries of the Pentalungan tribe's mothers.

**Results**

Research on the effect of seeking treatment for a toothache on maternal caries in the Pentalungan tribe. The results of the study related to the characteristics of respondents based on age are presented in Table 1 below:

**Table 1:** The Distribution of respondents by age

Age	Total	Percentage (%)
12-16	0	0.0
17-25	77	19.9
26-35	131	33.9
36-45	105	27.2
46-55	55	14.2
56-65	16	4.1
>65	2	0.5
Total	386	100

The largest percentage of age shown in Table 1 is age 26-35 years as many as 131 (33.93%), while the least is age > 65 years. The characteristics of respondents' education are shown in Table 2 as follows.

**Table 2:** The Distribution of respondents by educational level

Education	Total	Percentage (%)
No education	22	5.7
Elementary school	227	58.8
Junior High School	83	21.5
Senior High School	45	11.7
College	9	2.3
Others	0	0
Total	386	100

Based on Table 2, the educational level is elementary school as much as 227 people (58, 8%) from 386 in total, while the respondents in college level just 9 people (2, 3%). The distribution of respondents by occupation is informed in the following table.

**Table 3:** The Distribution of respondents by occupational level

Age	Total	Percentage (%)
Civil Servant	5	1.3%
Self Employed	42	10.9%
Housewife	208	53.9%
Factory Laborer	7	1.8%
Farm Laborer	114	29.5%
Freelancer	4	1.0%
Retiree	0	0.0%
Others	6	1.6%
Total	386	100

The information obtained from Table 3 is most of the respondents' occupation is housewives as much as 208 (53, 9%). The seeking of toothache treatment can be seen in Table 4 as follows.

**Table 4:** The Distribution of respondents' treatment-seeking of toothache

Treatment-seeking	Total	Percentage (%)
False	264	68.4
True	122	31.6
Jumlah	386	100

The distribution of the treatment-seeking act on toothache shows 264 people are false (68, 4%). The distribution of respondents' dental caries can be seen in Table 5 as follows.

**Table 5:** The Distribution of respondents' dental caries by DMF-T Index

Categories	Total	Percentage (%)	DMF-T
Very High	148	38.3%	8.63
High	97	25.1%	5.48
Medium	72	18.7%	3.48
Low	38	9.8%	2
Very Low	31	8.0%	0.8
Total	386	100	5.6

The distribution of dental caries shows that the highest frequency is a very high category as many as 148 people (38.3%) The effect of the variable action of seeking treatment for a toothache on dental caries can be seen in the following Table 6.

**Table 6:** Analysis of the effect of seeking treatment for toothache on dental caries

Variable	Sig
[DMF = 1]	0.022
[DMF = 2]	0.006
[DMF = 3]	0.001
[DMF = 4]	0.000
[Treatment=1]	0.029
[Treatment=2]	

The Parameter Estimate table above, the treatment-seeking action variable has a sig.0.029 (<0.05). This shows how treatment-seeking acts impact dental caries in mothers of the Pentalungan tribe.

**Discussion**

The majority age of Pentalungan tribe mothers is 26-35 years. Most of the educational levels respondents are in elementary school with housewives as their occupation. The higher the level of one's educational level, the higher the work capacity or productivity in working [12, 13].

The act of seeking treatment for a toothache by Pentalungan tribe mothers is false by leaving alone, taking stall medicine, massaging, or drinking traditional herbs. This result is in line with the research done by Harahap *et al.* (2017). The result of the research states seeking treatment for pain is false because of economic factors. The lowest economic status causes the highest frequency of seeking alternative medicine with the cheap but still giving the same effect in decreasing pain as reason [14].

Dental caries of Pentalungan tribe mothers are categorized as very high. Mothers with low education lack of having information about dental health maintenance behavior, which will influence the hygiene condition of their oral cavity, and the caries level are higher compared with mothers with high

educational level [15, 16]. The research done by Wang *et al.*, 2017 shows people with low economic levels have poor oral health based on a total score of DMF-T=13,35 ± 9,60.

Based on the effect test results the act of seeking treatment for toothache has an effect on the caries of Pandalungan tribe mothers. The more wrong the toothache treatment, the more severe dental caries will be. This is in line with the research of Ocwia *et al.* (2021) regarding treatment seeking in adults in Nebbi District, one of the districts of the village in Uganda. The most widely reported reason for not seeking dental care at the dentist is the widely held perception that one needs to visit the dentist only when there are symptoms such as pain and emergency.

Self-treatment practice in the dental health field may occur for various reasons. People still consider dental health problem as non-serious problem which doesn't need to be treated by a doctor and can be self-treated by consuming self-medication. The pricy cost of treatment or not covered by insurance and lack of time to seek medical treatment is the reason people practice self-medication [18, 19]. Self-medication with traditional medicine or taking stall medicine is the wrong way because it only solves the pain caused by dental caries. The cause of pain is caused by a tooth hole that has an infection and can only be resolved by a filling performed at a dental clinic [20].

### Conclusion

There is an effect of toothache treatment-seeking actions on dental caries in the Pandalungan tribe mothers.

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### Conflict of Interest

Not available

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Not available

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