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## City Relationship Of Smokers Knowledge With Dental Stain In Community In Gampong Lam Raya Aceh Besar District

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### ABSTRACT

Smoking is a bad oral habit and can cause long-term damage to both the health of the body and the oral cavity. Smoking is one of the main causes of discoloration of teeth. This study aims to determine the relationship between knowledge of smokers and dental stains in the people of Gampong Lamraya, Aceh Besar District in 2022. The population in this study is the people of Gampong Lam Raya, Aceh Besar District. Sampling using accidental sampling technique with inclusion criteria, namely the respondents are male, active smokers, aged 17-45 years and willing to be invited to participate. The number of samples in the study were 30 respondents. The instruments used are diagnostic sets, KSP, and questionnaires. Data analysis using Chi-Square statistical test with 0.05. The results showed that the highest knowledge of smokers about dental stains was in the poor category, namely 21 respondents (70%) and 16 respondents (53.3%) having dental stains. The results of the Chi-Square statistic test obtained a P value of 0.000 with a value of 0.05 and  $df = 1$ , meaning that there is a relationship between knowledge of smokers and the presence of dental stains in the people of Gampong Lam Raya, Aceh Besar District. It is hoped that the community can reduce cigarette consumption because it can affect dental health (dental stain) and health in general.

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### INTRODUCTION

Knowledge is the result after a person has sensed a certain object. Most of human knowledge is obtained from the eyes and ears. Knowledge or cognitive is a very important domain for the formation of one's actions. Because behavior based on knowledge will be more lasting than behavior that is not based on knowledge. Knowledge is also one of the factors that can affect the health status of individuals and communities, including dental health. (1)

Knowledge about the adverse effects of smoking on public health is increasing with the number of reports and scientific evidence in various medical journals of the world. It turns out that from cigarette smoke, not only nicotine is harmful but also other substances contained in cigarette smoke and tar as a result of burning tobacco, contributing to the dangers of smoking to health. The danger is also reinforced by the

addictive effects of nicotine. With addiction, smokers will always look for cigarettes every time they are addicted, and thus make these harmful substances accumulate in their bodies, so that they gradually get closer to the risk of disease caused by smoking (2).

Smoking is an unresolved problem to date. Smoking has hit various groups from children to the elderly, men and women, around 34% or as many as 80 million Indonesians are smokers. With this figure, the World Health Organization (WHO) ranks Indonesia as third in the world after China with 390 million smokers and India with 144 million smokers.

Smoking habits increase the risk of various diseases such as heart disease and blood vessel disorders, lung cancer, oral cavity cancer, laryngeal cancer, esophageal cancer, bronchitis, high blood pressure, impotence and pregnancy disorders and defects in the fetus. However, in

reality, this smoking habit is difficult to eliminate and respondents are rarely recognized as a bad habit (3).

Smoking is the worst oral habit and can cause long-term damage to both the health of the body and the oral cavity. Cigarettes have many effects on oral health, such as staining or staining on the teeth and oral mucosa and bad breath that is most often experienced by smokers. Smoking is one of the main causes of discoloration of teeth. Cigarettes contain tar and other chemicals that can discolor a person's teeth, and certain medications, such as the antibiotic tetracycline can also cause discoloration of the teeth (4).

Stain has a bad impact on health. Stains can also cause brown to black teeth on the neck of the teeth. The distribution and discoloration are determined by the type, amount and duration of the habit of consuming cigarettes, coffee, tea and betel nut, the greater the chance for tooth discoloration. Stain is a pigmented deposit on the tooth surface which is an aesthetic problem and a problem that makes the tooth surface rough which in turn will cause plaque buildup so as to irritate the gums or adjacent gingiva (5).

The percentage of people who smoke in Aceh Province is ranked sixth out of 10 provinces with the highest smoking prevalence in Indonesia (31.9%). The Regional Government has issued a "qanun" (regional regulation) regarding the prohibition of smoking in certain places and the existence of a No Smoking Area (KTR), but it is rather difficult especially forbidding smoking in public places such as coffee shops, because coffee and cigarettes are almost inseparable.

Based on data obtained by the Basic Health Research, the smoking behavior of the population 15 years and over has not decreased and tends to increase from (34.2%) to (36.3%) in 2018. A total of 64.9% men and 2.1% women still smoke cigarettes actively. It was found that 1.4 percent of smokers aged 10-14 years, 9.9 percent of smokers in the unemployed group, and 32.3 percent in the lowest ownership index quintile group. Meanwhile, the average number of cigarettes smoked per day is around 12.3 cigarettes, varying from the lowest 10 cigarettes in Yogyakarta and the highest in Bangka Belitung (18.3 cigarettes)

and in Riau (16-17 cigarettes) while Aceh province ranks third. (15.3 sticks) from 33 provinces in Indonesia (6).

The Global Adult Tobacco Survey report shows that the smoking prevalence of the adult population in Indonesia will be 33.5% in 2021. This figure has decreased compared to 2011 which reached 36.1%. According to gender, the highest prevalence of smoking is experienced by men, which is 64.7%. Meanwhile, the prevalence of smoking by women is 2.3%. Based on age, the highest smoking prevalence came from the 25-44 year age group, which was 37.7%. The prevalence of smoking in the 45-64 year age group is 33.9%. Then, the prevalence of smoking at the age of 15-24 years was 27.9%. Meanwhile, the prevalence of smoking at the age of 65 years and over is 26.5%. Despite the declining prevalence, the number of adults in the country who smoked reached 69.1 million people last year. That number increased by 8.8 million people compared to a decade earlier which amounted to 8.8 million people.

Based on interviews and preliminary examinations conducted by researchers on 10 people in Gampong Lamraya, Aceh Besar District, it was found that 7 smokers had less knowledge about dental stains and had stains on their teeth.

## **METHOD**

This research is analytical in nature, namely knowing the relationship between knowledge of smokers and dental stains in the community in Gampong Lam Raya, Aceh Besar District in 2022. The population in this study is the residents of Gampong Lam Raya, Aceh Besar District. The sampling in this study used the accidental sampling technique with inclusion criteria, namely the respondents were male, active smokers, aged 17-45 years and could be invited to participate in this study. The instruments used in the study were diagnostic sets, KSP, and questionnaires. Data collection was obtained directly by conducting an examination and seeing the presence or absence of stains on the teeth as well as the results of interviews using a questionnaire. The data obtained from the results of the study were analyzed using univariate analysis and bivariate analysis to determine the relationship between the independent variable, namely the knowledge of smokers on the dependent variable, namely dental stains.

Statistical testing using the Chi-Square test with 0.05.

**RESULTS**

The results of research and data processing can be presented in the form of tables and narratives as follows:

a. Respondent's age

The frequency distribution of respondents based on age grouping can be seen in the following table:

**Table 1 Distribution Of Respondents Based On Age Grouping**

No	Age	F	%
1	17-25	14	46,6%
2	26-35	10	33.3%
3	36-45	6	20,1%
Total		30	100%

From the table above shows that respondents aged 17-25 years were 14 people (46.6%), aged 26-35 years were 10 people (33.3%), and aged 36-45 years were 6 people (20.1%).

b. Education Distribution

The frequency distribution of respondents based on education level can be seen in the following table:

**Table 2. The Frequency Distribution Of Respondents Based On Education Level**

No	Educational Level	F	%
1	SD dan SMP	10	33%
2	SMA	14	47%
3	D3/S1	6	20%
Total		30	100%

From table 2, it shows that the frequency of respondents based on education level is the highest in the SMA Education category as many as 14 (47%).

c. Univariate Data Analysis

1) Smoker knowledge

The distribution of frequency and percentage of respondents based on knowledge of smokers can be seen in the following table:

**Table 3 The Distribution Of Frequency And Percentage Of Respondents Based On Knowledge Of Smokers**

No	Knowledge Of Smokers	F	%
1	Not Good	21	70%
2	Good	9	30%
Total		30	100%

From table 3 shows that the highest knowledge of smokers is in the unfavorable category, namely 21 respondents (70%).

2) Teeth stain

The distribution of the frequency and percentage of respondents based on dental stains in the Gampong Lamraya community, Aceh Besar District can be seen in the following table:

**Table 4 The Distribution Of The Frequency And Percentage Of Respondents Based On Dental Stains**

No	Dental Stains	F	%
1	No Stain	14	46,7%
2	There are stains	16	53%
Total		30	100%

Table 4 shows that some respondents had dental stains, namely 16 respondents (53.3%) had dental stains, while the other 14 respondents (46.7%) did not have dental stains.

d. Bivariate Data Analysis

Cross tabulation of the relationship between knowledge of smokers and dental stains in the community can be seen in the table below:

**Table 5. Cross Tabulation Of The Relationship Between Knowledge Of Smokers And Dental Stains**



No	Knowledge of smokers	Dental Stains				Total	Result uji statistik	
		Stains	No stain	F				
1	No good	7	16,7	14	3,3	21	0	P = 0,000
2	Good	9	30	0			0	df = 1
Total		16	46,7	14	3,3	30	00	$\alpha = 0,05$

Based on the results of statistical tests, the P value is 0.000 while the value is 0.05 and  $df = 1$ . Because the  $P < \alpha$ , statistically it is said to have a significant relationship. So in this study  $H_a$  was accepted, that is, there is a relationship between knowledge of smokers and the presence of stains on the teeth of the Lam Raya community, Aceh Besar District.

## DISCUSSION

Based on the results of research conducted on 30 smokers in the Lamraya gampong community, Aceh Besar District, it was found that 21 respondents (70%), with good knowledge, had poor knowledge and 9 (30%). The results of the statistical test showed a P value of 0.000 while the value of was 0.05 and  $df = 1$  with a  $P < \alpha$ , statistically it was said to have a significant relationship between knowledge of smokers and the presence of stains on the teeth of the Lam Raya community, Aceh Besar District.

The author assumes that most respondents do not know about dental stains that can cause teeth to turn brown to black, this is influenced by the education factor of the average community is still in secondary education. Some of them are already aware of the importance of maintaining oral and dental hygiene, especially the bad effects of dental stains, but because they think that dental stains do not interfere with their daily activities, some of them ignore the adverse effects of dental stains.

Knowledge about the bad effects of smoking on dental stains is not a reason for some people from smokers to stop smoking, this is thought to be influenced by other factors such as the presence of friends who still smoke and cigarettes can be obtained anywhere. There are seven kinds of motivation for a smoker, including cigarettes as a social tool (psychosocial), nervous satisfaction (sensorimotor), a source of pleasure, eliminating bad feelings, stimulants, fulfilling addictions

(addictive) and habits. High knowledge when accompanied by awareness in caring for dental health will get perfect results. Vice versa, low knowledge when accompanied by awareness in caring for dental health will get imperfect results. The knowledge that must be possessed is about the factors that cause stains and knowledge about the whole problem of dental health (7).

Staining of the teeth and oral mucosa and bad breath are the most common problems experienced by smokers. Teeth staining or so-called stains can be caused by many factors including the use of tobacco such as cigarettes. Changes in tooth color will be even greater if you consume cigarettes more often, plus a long period of time (8).

For smokers, smoking is part of their daily routine and even becomes a habit. Many things can trigger a person to smoke, for example smoking after getting up in the morning, while drinking coffee, after lunch, or when talking on the phone. Smoking has become a daily routine even though they already know the impact on general health and dental health. Seeing other people smoking can also be a trigger to light a cigarette.

Individual or community dental health is one of the factors that influence the general health of the individual or society. Smoking behavior has become a common thing in various places, even in public places. Cigarettes can also be easily obtained. There are only a few places that have imposed an age limit on the purchase of cigarettes. Smoking habits begin with the first cigarette, generally cigarettes begin when they are teenagers (9).

Knowledge and information is an aspect that connects the health control center and a person's behavior (10). This means that a person's knowledge of smoking will increase his control over health problems. People who have the right knowledge about smoking and its consequences

will tend to have an internal health control center and not smoke. Conversely, someone who has little knowledge about smoking is more likely to have an external health control center and smoke.

## **CONCLUSION**

From the results of the study, it can be concluded that there is a relationship between knowledge of smokers and the occurrence of dental stains in the people of Gampong Lamraya, Aceh Besar District (P value = 0.001 < 0.05). It is hoped that the public can reduce cigarette consumption because it can affect dental and oral health (dental stains) and health in general.

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