

Smoking Behavior in National Health Insurance (JKN) Participants Recipients of Contribution Assistance (PBI) in Tenggela Village

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ABSTRACT

Smoking behavior is seen from various points of view as very detrimental, both for oneself and the people around him. Gorontalo Province is one of the provinces with the most smokers in Indonesia. The purpose of the study was to analyze factors related to smoking behavior in national health insurance (JKN) participants receiving contribution assistance (PBI) in Tenggela Village. Analytical observational research method with cross sectional design. The population in this study is the Heads of Families Participating in the National Health Insurance (JKN) Recipients of Contribution Assistance (PBI) in Tenggela Village as many as 638 Heads of Families. The sample in this study amounted to 246 families participating in Contribution Assistance Recipients (PBI) and used the Proportional Simple Random Sampling technique. Data collection by interviewing respondents using questionnaires and data was analyzed by chi square test. The results of the study showed that there was a relationship between age, occupation, knowledge, and expenditure with smoking behavior. Age produces p-value=0.000, work produces p-value=0.025, knowledge produces p-value=0.034, expenditure produces p-value=0.000. And there was no relationship between education and smoking behavior which resulted in p-value = 0.473. It is hoped that the local government will further socialize, realize, and evaluate the Smoke-Free Zone (KTR) policy in Tenggela village. And it is necessary to make binding rules and sanctions for the No Smoking Area policy.

INTRODUCTION

Smoking behavior is one of the unhealthy habits or lifestyles. Smoking behavior is seen from various points of view as very detrimental, both for oneself and the people around him. Smoking is also one of the serious problems because of its influence on various aspects, namely health aspects, economic aspects, social aspects, and culture.

Gorontalo Province is one of the provinces with the most smokers in Indonesia. The percentage of smoking in Gorontalo Province in the population aged ≥ 15 years was 30.30% in 2020, increasing to 30.50% in 2021 (BPS, 2022). Based on the type of work, farmers/fishermen/laborers are daily active smokers who have the largest proportion of 44.5% compared to other work groups (Ministry of Health of the Republic of Indonesia, 2013).

The results of the initial survey with 25 JKN family heads of Contribution Assistance Recipients (PBI) who were smokers. Ten people or (40%) work as traders with an average income of $> 2,000,000$ per month, 7 people or (28%) work as construction workers with an average income $>1,500,000$ per month, 5 people or (20%) work as fishermen with an average income of $>1,000,000$ per month, and 3 people or (12%) work as farmers with an average income of $<1,000,000$ per month. They are able to consume as many cigarettes as many as (15-40 cigarettes per day), the price of cigarettes ranges from Rp. 20,000 to Rp. 40,000 per day or $> Rp.1,000,000$ per month. They smoke on the sidelines of breaks from their leisure activities, after eating. Based on the income they

get, the average per capita expenditure per month on the cost of cigarettes is much higher than on the cost of education, health and daily living expenses.

Based on the description of the background of the problem above, this study will take the title "Smoking Behavior in National Health Insurance (JKN) Participants Recipients of Contribution Assistance (PBI) in Tenggela Village"

RESEARCH METHODS

Analytical observational research method with cross sectional design. The population in this study is the Heads of Families Participating in the National Health Insurance (JKN) Recipients of Contribution Assistance (PBI) in Tenggela Village as many as 638 Heads of Families. The sample in this study amounted to 246 families participating in Contribution Assistance Recipients (PBI) and used the Proportional Simple Random Sampling technique. Data collection by interviewing respondents using questionnaires and data was analyzed by chi square test.

RESEARCH RESULTS

Resonden Characteristics By Gender

Table 1: Distribution of Respondents by Gender in Tenggela Village

Gender	Quantity	
	n	%
Male	243	98,8
Women	3	1,2
Total	246	100,0

Source: Primary Data 2025

Based on table 1, it shows that the most respondents are male as many as 243 people (98.8%), while the least female is 3 people (1.2%).

Univariate Analysis Results

Table 2: Distribution of Respondents by Age in Tenggela Village

Respondent Age	Quantity	
	n	%
19-25 Years	20	8,1
26-35 Years	114	46,3
36-45 Years	61	24,8
46-55 Years	36	14,6
56-65 Years	13	5,3
> 65 years old	2	0,8
Total	246	100,0

Source: Primary Data 2025

Based on table 2, it shows that the most respondents are at the age of 26-35 years as many as 114 people (46.3%), while the least are at the age of >65 years as many as 2 people (0.8%).

Table 3: Distribution of Respondents by Last Education in Tenggela Village

Final Education	Quantity	
	n	%
SD	89	36,2
Junior High School Equivalent	78	31,7
High School Equivalent	75	30,5
College	4	1,6
Total	246	100,0

Source: Primary Data 2025

Based on table 3, it shows that the most respondents are with elementary higher education as many as 89 people (36.2%), while the least is Higher Education which is 4 people (1.6%).

Table 4: Distribution of Respondents by Occupation in Tenggela Village

Jobs	Quantity	
	n	%
Merchant	95	38,6
Fisherman	54	22,0
Farmer	26	10,6
Day laborers	25	10,2
Self-employed	43	17,5
Housewives	3	1,2
Total	246	100,0

Source: Primary Data 2025

Based on table 4, it shows that the most respondents are 85 people (38.6%) in the work of Traders, while the least in the work of Housewives are 2 people (1.2%).

Table 5: Distribution of respondents based on respondents' knowledge in Tenggela Village

Knowledge	Quantity	
	n	%
Good	135	54,9
Less	111	45,1
Total	246	100,0

Source: Primary Data2025

Based on table 5, it shows that the most respondents are knowledgeable as many as 135 people (54.9%), while the least knowledgeable are 111 people (45.1%).

Table 6: Distribution of Respondents Based on Respondent Expenditure in Tenggela Village

Production	Quantity	
	n	%
Height	163	66,3
Low	83	33,7
Total	246	100,0

Source: Primary Data 2025

Based on table 6, it shows that the most respondents are the highest expenditure of 163 people (66.3%), while the least expenditure is 83 people (33.7%).

Table 7: Distribution of Respondents Based on Respondents' Smoking Behavior in Tenggela Village

Smoking Behavior	Quantity	
	n	%
Lightweight	58	23,6
Medium	112	45,5
Weight	76	30,9
Total	246	100,0

Source: Primary Data

Based on table 7, it can be seen that the majority of respondents were moderately smoking, as many as 112 people (45.5%), as many as 76 people (30.9%) were heavy smokers, while the fewest was light-smoking, which was 58 people (23.6%).

Bivariate Analysis Results

Table 8: Results of Analysis of the Relationship between Age and Smoking Behavior

Age	Smoking behavior								p value
	Lightweight		Medium		Weight		Total		
	n	%	n	%	n	%	n	%	
19-25 Years	6	30,0	10	50,0	4	20,0	20	100,0	0,000
26-35 Years	47	41,2	43	37,7	24	21,1	114	100,0	
36-45 Years	4	6,6	36	59,0	21	34,4	61	100,0	
46-55 Years	0	0,0	18	50,0	18	50,0	36	100,0	

56-65 Years	1	7,7	5	38,5	7	53,8	13	100,0
>65 Years	0	0,0	0	0,0	2	100	2	100,0
Total	58	23,6	112	45,5	76	30,9	246	100,0

Source: Primary Data 2025

Based on table 8 above, respondents who consumed a lot of cigarettes in the age group of 26-35 years had 47 people (41.2%), 43 people (37.7%) and 24 people (21.1%) who had heavy smoking behavior. Meanwhile, in the age group >65 years old, 0 people (0.0%) and 2 people (100.0%) who behave in heavy smoking

The results of the statistical test using the Chi-square test of the relationship between age and smoking behavior obtained p-value = 0.000 (<0.05) then H₀ was accepted which means that there is a significant relationship between age and smoking behavior.

Table 9: Results of Analysis of the Relationship between Education and Smoking Behavior

Education	Smoking behavior								p value
	Lightweight		Medium		Weight		Total		
	n	%	n	%	n	%	n	%	
SD	18	20,2	43	48,3	28	31,5	89	100	0,473
Junior High School Equivalent	17	21,8	31	12,6	30	38,5	78	100	
High School Equivalent	22	29,3	36	48,0	17	22,7	75	100	
College	1	25,0	2	50,0	1	25,0	4	100	
Total	58	23,6	112	45,5	76	30,9	246	100	

Source: Primary Data 2025

Based on table 9 above, it shows that in the elementary education group there were 18 people (20.2%) who behaved lightly smoking and 43 people (48.3%) and 28 people (31.5%) who behaved heavily smoking, while in the group with a university education who behaved lightly smoking as much as 1 person (25.0%), and who behaved moderately smoked as many as 2 people (50.0%) and who behaved heavily smoking as much as 1 person (25.0%).

The results of the statistical test using the Chi-square test of the relationship between education and smoking behavior were obtained p-value = 0.473 (<0.05), then H₀ was rejected which means that there is no significant relationship between education and smoking behavior.

Table 10: Results of Analysis of the relationship between Employment and Smoking Behavior

Jobs	Smoking behavior								p value
	Lightweight		Medium		Weight		Total		
	n	%	n	%	n	%	n	%	
Merchant	19	20,0	45	47,4	31	32,6	95	100	0,025
Fisherman	16	29,6	27	50,0	11	20,4	54	100	
Farmer	11	42,3	10	38,5	5	19,2	26	100	
Day laborers	3	12,0	8	32,0	14	56,0	25	100	
Self-employed	9	20,9	19	44,2	15	34,9	43	100	
Housewives	0	0,00	3	100	0	0,00	3	100	
Total	58	23,6	112	45,5	76	30,9	246	100	

Source: Primary Data 2025

Based on table 10 above, respondents in the work group as Traders who behaved lightly smoked as many as 19 people (20.0%), and 45 people (47.4%) and those who behaved heavily smoked as many as 31 people (32.6%), while in the work group as housewives only 3 people (100%) behaved moderately.

The results of the statistical test using the Chi-square test of the relationship between work and smoking behavior were obtained p-value = 0.025 (<0.05), then H₀ was accepted, which means that there is a significant relationship between work and smoking behavior.

Table 11: Results of Analysis of the Relationship between Knowledge and Smoking Behavior

Knowledge	Smoking behavior								p value
	Lightweight		Medium		Weight		Total		
	n	%	n	%	n	%	n	%	
Good	39	28,9	62	45,9	34	25,2	135	100,0	0,034
Less	19	17,1	50	45,0	42	37,8	111	100,0	
Total	58	23,6	112	45,5	76	30,9	246	100,0	

Based on table 11 above, it shows that in the knowledge group there were 39 people who behaved lightly smoking as many as 39 people (28.9%), and 62 people (45.9%) who behaved moderately and 34 people (25.2%) who behaved heavily smoking, while in the less knowledge group there were 19 people (17.1%), and 50 people (45.0%) who behaved moderately and 42 people (37.8%) who behaved heavily.

The results of the statistical test using the Chi-square test of the relationship between knowledge and smoking behavior were obtained $p\text{-value} = 0.034 (<0.05)$, then H_0 was accepted, which means that there is a significant relationship between knowledge and smoking behavior.

Table 12: Results of Analysis of the Relationship between Expenditure and Smoking Behavior

Production	Smoking behavior								p value
	Lightweight		Medium		Weight		Total		
	n	%	n	%	n	%	n	%	
Height	1	0,6	86	52,8	76	46,6	163	100,0	0,000
Low	57	68,7	26	31,3	0	0,0	83	100	
Total	58	23,6	112	45,5	76	30,9	246	100	

Source: Primary Data 2025

Based on table 12 above, it shows that in the high-expenditure group there were 1 person (0.6%), 86 people (52.8%) and 76 people (46.6%) who behaved heavily smoking, while in the low expenditure group there were 57 people (68.7%), and 26 people (31.3%) and 0 people (0.0%) who behaved heavily smoking.

The results of the statistical test using the Chi-square test of the relationship between expenditure and smoking behavior were obtained $p\text{-value} = 0.000 (<0.05)$ then H_0 was accepted which means that there is a significant relationship between expenditure and smoking behavior.

DISCUSSION

The Relationship between Age and Smoking Behavior of National Health Insurance (JKN) Participants in Tenggela Village

Based on the study, it shows that the most respondents are at the age of 25-35 years as many as 114 people (46.3%), while the least at the age of >65 years are 2 people (0.8%). Age is a variable that basically increases in maturity, the more information will be obtained from the environment and surrounding experiences. Smoking behavior is formed not only by internal factors such as individual character but can also be influenced by exceleling factors, both physical and social environments.

The results of the statistical test using the Chi-square test of the relationship between age and smoking behavior were obtained $p\text{-value} = 0.000 (<0.05)$ then H_0 was accepted which means that there is a significant relationship between age and smoking behavior. Based on the results of research in the field, it is shown that age also affects smoking habits, usually at productive age smoking behavior will increase drastically because it is caused by a lack of understanding and awareness about cigarettes and a lack of self-importance. The public, especially Contribution Assistance Recipients (PBI), feel that smoking can increase their enthusiasm for work and cigarettes are the main reason to relieve stress and boredom. The high intensity of smoking among the age group of 26-35 years is due to the assumption that smoking is normal and at the age of >65 years smoking behavior decreases because it is caused by diseases that require respondents to stop smoking. This is in accordance with Tomkins (1966) who stated that the reason individuals have smoking behavior is due to psychological dependence. Physically, the individual is addicted to smoking and he is unable to avoid or resist requests that come from within him (internally).

The Relationship of Education to the Smoking Behavior of National Health Insurance (JKN) Participants in Tenggela Village

Based on the results of the study, it shows that the most respondents are with higher education as many as 135 people (54.9%), while those with low education are 111 people (45.1%).

The results of the statistical test using the Chi-square test of the relationship between education and smoking behavior were obtained $p\text{-value} = 0.473 (<0.05)$, then H_0 was rejected which means that there was no significant relationship between education and smoking behavior. Based on the results of research in the field, it shows that there is a difference in the level of education and smoking behavior, it can be seen that both the level of low education (elementary/junior high school equivalent) and higher education (high school graduation) both have a considerable number of smokers from the total number of respondents based on education level. This happens because respondents' knowledge of the dangers of smoking is not affected by the respondent's level of education.

This is also in line with Jayathilake's (2013) research which states that there is no significant evidence showing the influence of education with risk behaviors where we know that smoking is a risky behavior to health.

This result is also in line with Trisha's (2014) research which said that education in the Mentawai Islands does not significantly affect smoking behavior in the head of household.

Employment Relationship with Smoking Behavior of National Health Insurance (JKN) Participants in Tenggela Village

Based on the results of the study, it was shown that the most respondents were permanent workers as many as 221 people (89.8%) while non-permanent workers were 25 people (10.2%).

The results of the statistical test using the Chi-square test of the relationship between work and smoking behavior were obtained $p\text{-value} = 0.025 (<0.05)$ then H_0 was accepted which means that there is a significant relationship between work and smoking behavior. Based on the results of interviews and observations in the field, it was shown that respondents who had a permanent job had a great chance of smoking compared to respondents who had a non-permanent job, because the heads of poor households of PBI participants who worked said that they would try to keep smoking even though they had a lot of work to relieve the stress caused by their work.

The results of this study are in line with the research of Fernando, Septiko, Pratiwi (2015), which shows the influence of work on smoking behavior in Pontianak City ($p = <0.001$). If there is an environment or the influence of social interaction with other people that allows a stimulus to smoke, then a person will tend to behave smoking. Similarly, the definition of work behavior which is the result of interaction with other people in a work environment so that it will affect a person's attitude and belief towards something, so too will a person's behavior be formed while he works (Fernando, Septiko, Pratiwi, 2015). According to the researcher's opinion, this occurred in relation to the employment of the respondents, most of whom were traders and fishermen (61.8%) or as many as 97 respondents. According to the survey results, they smoke cigarettes to unwind while resting from their daily work.

The Relationship of Knowledge with the Smoking Behavior of National Health Insurance (JKN) Participants in Tenggela Village

Based on the results of the study, it was shown that 135 respondents had good knowledge (54.9%) while 111 people (54.9%) had less knowledge. The results of the statistical test using the Chi-square test of the relationship between knowledge and smoking behavior were obtained $p\text{-value} = 0.034 (<0.05)$, then H_0 was accepted, which means that there is a significant relationship between knowledge and smoking behavior.

Based on the results of interviews and observations, it is known that the majority of respondents who show good knowledge but smoking behavior is not always enough to prevent smoking behavior. Other factors such as attitudes where a person may have a good knowledge of the dangers of smoking but belief in those risks are not strong they underestimate the long-term consequences. The social influence where if a person grows up in a family that smokes, the social pressure to participate in smoking can be very large even if they know the risks. Nicotine addiction is a very strong driving factor even though the knowledge of the dangers of smoking exists, but the desire for nicotine overcomes the racial balance and psychological factors where if a person experiences stress or depression the emotional needs are stronger than the knowledge of health consequences.

The results of this study are also in line with the research of Herlina (2017) which states that there is a significant influence between knowledge and smoking behavior of the head of the family in Ujung Padang Village, Padang City. The knowledge of the head of the family about smoking behavior is important, because it is closely related to the behavior that will be followed by other family members. However, in reality, smoking behavior is still a habit that is considered natural by the poor people, especially the poor.

The Relationship of Expenditure to the Smoking Behavior of National Health Insurance (JKN) Participants in Tenggela Village

Based on the results of the study, it was shown that 163 people (66.3%) had higher expenses while those with low expenses were 83 people (33.7%). The results of the statistical test using the Chi-square test of the relationship between expenditure and smoking behavior were obtained $p\text{-value} = 0.000 (<0.05)$ then H_0 was accepted which means that there is a significant relationship between expenditure and smoking behavior.

The high expenditure of respondents to buy cigarettes is because cigarettes have become one of the needs that must be met, this can be seen from the habits of the respondents who most of them cannot help but smoke in one day. A reduction in essential expenses when one or more family members smoke, a portion of the family budget is allocated to purchase cigarettes. This has the potential to reduce spending on other essential needs such as nutritious food, children's education, and health. Regular spending on cigarettes can worsen a family's financial condition and may hinder their ability to get out of higher poverty.

This research is in line with the results of research in BPS (2017) where it was found that the food commodities that make the largest contribution to the poverty line are rice, cigarettes, eggs, etc. Cigarettes are one of the food commodities that make the second largest contribution after food. This is also in line with the results of Siyoto's (2013) research where the second largest expenditure of poor families in Kediri City is the consumption of tobacco/cigarettes, after the need to eat in the first expenditure.

CONCLUSION

Age has a significant relationship with smoking behavior in National Health Insurance (JKN) participants who receive contribution assistance (PBI) and smoking behavior in Tenggela Village

Education did not have a significant relationship with smoking behavior in National Health Insurance (JKN) participants who received contribution assistance (PBI) and smoking behavior in Tenggela Village

Employment has a significant relationship with smoking behavior in National Health Insurance (JKN) participants who receive contribution assistance (PBI) and smoking behavior in Tenggela Village

Knowledge has a significant relationship with smoking behavior in National Health Insurance (JKN) participants who receive contribution assistance (PBI) with smoking behavior in Tenggela Village

Expenditure has a significant relationship with smoking behavior in National Health Insurance (JKN) participants who receive contribution assistance (PBI) and smoking behavior in Tenggela Village

SUGGESTIONS

The results of this study are expected to be a guideline and reference in teaching and learning activities and an additional reference for academics to related to research on smoking behavior in national health insurance (JKN) participants who receive contribution assistance (PBI).

It is hoped that the Regional Government will further socialize, realize, and evaluate the No Smoking Area (KTR) policy in Tenggela Village, and it is necessary to make binding rules and sanctions for the No Smoking Area policy.

It is hoped that the next researcher can make the results of this study as additional insights and references, especially about the factors that affect smoking behavior in national health insurance (JKN) participants, recipients of contribution assistance (PBI) and can add other variables to be researched.

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