

Analisis Of Factors Related To Open Defecation Behavior In Punjul Village Plosoklaten District Kediri Regency

Eka Yuliati¹, Ardi Bastian²

^{1,2}Institut Ilmu Kesehatan STRADA Indonesia

*Corresponding Author : yuliatieka79@gmail.com

ABSTRACT

Open defecation is one of major public health problem in Kediri regency. Data from the UPTD Puskesmas Pranggang shows that as many as 885 households in Punjul village do not have latrines. This study aims to analyze the associated factors of open defecation behavior in Punjul Village, Plosoklaten District, Kediri Regency. This study used a quantitative method with a cross sectional approach. This research was conducted in Punjul Village, Plosoklaten District Kediri Regency. Using simple random sampling technique, the number of sample was 93 respondents. Data analysis method was bivariate analysis using the chi-square test. The research finds that only one variable has no correlation on open defecation behaviour while the rest variables show significant association. Education has no correlation with open defecation behavior ($p = 0.059$, $RP = 1.424$). While other variable shows significant association; occupation ($p = 0.025$, $RP = 1.985$), income ($p = 0.001$, $RP = 1.944$), distance between houses and rivers ($p = 0.007$, $RP = 0.307$), attitudes towards regulations ($p = 0.000$, $RP = 2,710$), community habits ($p = 0,000$, $RP = 8,049$), latrine ownership ($p = 0,000$, $RP = 4,785$). The most of open defecation is caused by uncertain income in Punjul Village so it is difficult to have a proper toilet. The close distance between the house and the river makes people prefer to defecate in the river. Community habits that have become a tradition / culture (passed down) from parents to defecate in the river. Only a few people who have healthy latrines. So, it is hoped that the public health center and the local government will conduct more frequent education to reduce open defecation, as well as provide an example for triggering healthy latrines by building public toilets.

Keywords : Habit, Latrine Ownership, Open Defecation Behavior

INTRODUCTION

The behavior of open defecation (BABS) Murwati (2012) is an act of removing feces or feces in fields, forests, bushes, rivers, beaches or other open areas and allowed to spread to contaminate the environment, soil, air and water. The behavior of open defecation is very detrimental and damaging to the surrounding environment, especially as one of the causes of various diseases.

WHO data (Word Health Organization) said that more than 2.6 billion people in rural and urban areas now do not have access to basic sanitation. There are about 70% of the people who are still used to defecating (BAB) in the open. Indonesia is still lagging behind in terms of sanitation access among ASEAN countries, where its position is below the Philippines and Cambodia, while Malaysia has 96% sanitation coverage.

Based on data from Riskesdas (2013), there were 39-40 million people who defecated in the open. People who do open defecation are not only those who do not have a latrine but also those who have a latrine.

According to Karuru (2014), East Java is still experiencing problems related to the habit of open defecation (BABS). East Java Province with a population of around 38,610,000 people, not all of them have access to proper sanitation, that is only 60.38%. Meanwhile,

18.12% did not have access to a toilet at all. The impact of poor sanitation affects the under-five mortality rate in East Java by up to 30 per 1,000 live births, while cases of diarrhea in children under five reached 2.30%.

Data from the Kediri District Health Office shows that households with PHBS are 64.89% and ownership of healthy latrines is 97.37%. The number of diarrhea sufferers reached by health service facilities for 2018 was 27,810 (66%), of which 9,045 people (46%) were under five (0 <5 years). In general, diarrheal disease is closely related to hygiene sanitation and hygiene and healthy living habits (PHBS). so that an increase in diarrhea cases is a reflection of the decreasing quality of these factors.

Data from the UPTD Puskesmas Pranggang in 2019, there are still many residents in Punjul village who are categorized as unhealthy families, namely 661 families and 224 pre-healthy families. This happens because there are still many people who do not have latrines, with a total of 885 families. Families that are in the unhealthy category are those that do not have a latrine and do open defecation, while those in the pre-healthy category are those that do not have a latrine but defecate in a latrine owned by a neighbor or relative. Also obtained data on diarrhea in Punjul village as many as 61 patients.

METHODS

This study used a quantitative method with an observational research design, using a cross sectional approach. This research was conducted in Punjul Village, Plosoklaten District, Kediri Regency, with a sample of 93 respondents by means of techniques Simple random sampling. Data were collected by questionnaire, bivariate analysis using test chi-square.

RESULTS

1. Variable Characteristics

Table 1 Characteristics variabel

No.	Karakteristik	ΣN	Σ%
1.	Eduksation		
	SD	38	41
	SMP	22	23
	SMA	24	26
	Diplomat/shcolar	9	10
2.	Profession		
	Farmer	50	54
	Trader/enterpreneur	23	25
	Private employees	11	12
	PNS/BUMN/TNI/Polri	3	3
	IRT(housewife)	6	6
3.	Income		
	Under UMR (<2 juta)	63	68
	Above UMR (>2 juta)	30	32
4.	Distance From House to River		
	close (<50 m)	88	95
	Far (> 50 m)	5	5
5.	Attitude to Ruler		
	Negative	66	71
	Positive	27	29
6.	People's Habits		
	Bad	82	88
	Good	11	12
7.	Latrine Ownership		

No.	Karakteristik	ΣN	Σ%
	Don't have a latrine	54	58
	Have a latrine	39	42
8.	Indiscriminate Defecation Behavior		
	Open Defaction Behavior	61	66
	Don't Open Defaction Behavior	32	34

Based on the research results in the table above, it was obtained from 93 respondents, the last education that some respondents had was elementary school level with the acquisition of 38 families (41%), and very few respondents who had the latest education at the diplomat / bachelor level were 9 families (10%). the jobs owned by some respondents are farmers with the acquisition of 50 households (54%), and very few respondents have jobs PNS /BUMN/TNI/Polri as many as 3 families (3%).

The income generated by some respondents is below the UMR (<2 million) with the acquisition of 63 households (68%), and very few respondents who have an income above the UMR (> 2 million) are 30 families (32%). The distance between the house and the river owned by some respondents is close (<50 m) with the acquisition of 88 households (95%), and very few respondents who have a distance from the house to the river far (> 50 m) as many as 5 families (5%). attitudes towards regulations owned by some respondents were negative with the acquisition of 66 households (71%), and very few respondents had attitudes towards positive regulations as many as 27 families (29%). community habits owned by some respondents are bad with the acquisition of 82 households (88%), and very few respondents who have attitudes towards positive regulations as many as 11 families (12%). ownership of latrines owned by some respondents is not having healthy latrines with the acquisition of 54 households (58%), and very few respondents who have healthy latrines are 39 households (42%). The behavior of open defecation owned by some respondents is open defecation with the acquisition of 61 families (66%), and very few respondents who do not defecate openly as many as 32 families (34%).

2. Statistical Test Results

Table 2 Statistical Test Results

Variable	<i>p-value</i>	RP	95% CL	Information
Education	0.059	1,424	0.989-2,050	No connection
Profession	0.025	1,985	0.969-4.065	There is a relationship
Income	0.001	1,944	1,230-3,073	There is a relationship
Home Distance to River	0.007	0.307	0.224-0,420	There is a relationship
Attitude to Ruler	0.000	2,710	1,497-4,906	There is a relationship
people's habits	0,000	8,049	1,236-52,398	There is a relationship
latrine ownership	0,000	4,785	2,577-8,885	There is a relationship

DISCUSSION

A. The Relationship between Education and Open Defecation Behavior

The results of the analysis used the test chi-square obtained $p\text{-value } 0.059 > (0.05)$ so that H_0 be accepted. This means that there is no relationship between education and open defecation behavior. RP Value (Risk Prevalens) 1.424 means that respondents with low education have a risk of defecating in open defecation which is 1.4 times greater than respondents with high education. The value of 95% CL is 0.989-2.050 with a confidence range of 0.989-2.050.

The results of this analysis are in line with the research by Sutedjo (2003) which

states that there is no relationship between education and respondent behavior in using healthy latrines. This is different from the results of research by Kurniawati (2015) which states that there is a relationship between education and the behavior of the head of the family in using latrines.

Pambudi (2019) stated in his research that there is a relationship between education and open defecation behavior. This research is also supported by Saliani (2017) who states that there is a relationship between education and open defecation behavior. In accordance with the results in the field, it shows that a person's formal education is not the basis in society to defecate in open society. Respondents who have low and high education have the same opportunity to practice open defecation, the results of the study show that on average highly educated respondents own latrines but do not use drains, septic tank and direct the waster in the river, this shows that highly educated people do not necessarily adopt healthy living habits.

B. Work Relationship with Open Defecation Behavior

The results of the analysis used the test chi-square obtained p-value $0.025 < (0.05)$ so that H_0 rejected. This means that there is a relationship between work and open defecation behavior. RP Value (Risk Prevalens) of 1,985 means that respondents who work informally have a 1.5 times greater risk of defecating in open defecation than respondents who work formally. The value of 95% CL is 0.969-4.065 with a confidence range of 0.969-4.065.

This result is in line with Widowati's research (2015) that there is a significant relationship between the level of work and the behavior of open defecation (BABS) in the work area of the Kontakmacan II Community Health Center, Sragen Regency. Respondents with informal jobs have a behavioral risk of 3.535 times greater for open defecation (BABS) than respondents with formal jobs.

The results of the research on occupational variables, the average occupation of respondents in the informal sector (farmers, traders / self-employed and IRT), most of the respondents work as farmers so that the income obtained is uncertain and insufficient to meet their daily needs. Meanwhile, respondents who work in the formal sector are accustomed to a clean and healthy work environment, which makes them behave better and feel the need to live healthily and be active in accordance with their work.

C. The Relationship between Income and Open Defecation Behavior

The results of the analysis used the test chi-square obtained p-value $0.001 < (0.05)$ so that H_0 rejected. This means that there is a relationship between income and open defecation behavior. RP Value (Risk Prevalens) 1.944 means that respondents with an income below the UMR (< 2 million) have a 1.9 times greater risk of defecating in open defecation than respondents with an income above the UMR (> 2 million). The 95% CL value is 1.230-3.073 with a confidence range of 1.230-3.073.

The results of this study are in line with Sari's research (2016). The results of the chi-square test show that there is a relationship between income levels and family defecation behavior in Kerjokidul Village, Ngadirojo District, Wonogiri Regency. Research Shuryaningtias (2016) shows that the factor related to open defecation behavior is economic status. This is shown in the income variable of the community, which is generally at a high economic level so that people are easy or able to build latrine facilities so that it affects the use and utilization of latrines.

Low income makes people unable to build proper health facilities for use, one of which is building healthy latrines. It is already hard to make ends meet, especially to build proper health facilities. For this reason, assistance from the government or village officials is urgently needed by the community.

D. Relationship between House Distance from River and Open Defecation Behavior

The results of the analysis used the test chi-square obtained p-value $0.007 < (0.05)$ so that H_0 rejected. This means that there is a relationship between the distance between the house and the river and the behavior of open defecation. RP Value (Risk Prevalens) 0.307 means that respondents whose house is from the river (near <50 m) have a 0.3 times greater risk of defecating in open defecation than respondents whose house is from the river (> 50 m away) The value of 95% CL is 0.224-0.420 with a confidence range of 0.224-0.420.

This research is in line with research conducted by Paladiang et al (2020) which states that the closer the respondent's house to the river, the bigger it is the tendency of respondents to have a bowel movement (open defecation). This is because many of the respondents' houses which are close to the river do not have healthy latrines. The unavailability of healthy latrines in each house triggers the behavior of family members, whether defecating in the river or in other open areas. Qudsiyah et al (2015) in their research also stated that there was a relationship between the distance from the house to the defecation besides the toilet. The distance from house to defecation in the near-medium category has a 20,250 greater chance than the distance from house to defecation in the far category.

This research is different from the research conducted by Paramita (2016) which states that the distance between the house and the river is not a problem in using latrines. The distance from the house does not necessarily make a reason for practicing BABS (open defecation). The closer the respondent's house to the river, the greater the tendency to practice open defecation, this is because most of the distance between the house and the river is in the near category, namely > 50 m. Apart from being close to the location of this research, it also has quite a lot of rivers to make it easier for respondents to practice defecating. This behavior is in accordance with the statement of Notoatmodjo (2011) mention that there are the right conditions and situations, it can allow or facilitate someone to manifest certain behavior.

E. The Relationship between Attitudes Against Regulations and Open Defecation Behavior

The results of the analysis used the test chi-square obtained p-value $0.000 < (0.05)$ so that H_0 rejected. This means that there is a relationship between attitudes towards regulations and behavior of open defecation. RP Value (Risk Prevalens) 2,710 means that respondents who have a negative attitude towards regulations have a 2.7 times greater risk of defecating behavior compared to respondents who have a positive attitude towards regulations. The value of 95% CL is 1,497-4,906 with a confidence range of 1,497-4,906.

This research is different from the research conducted by Sari (2016) with the results of the chi-square test that there is no relationship between attitude and family defecation behavior in Kerjokidul Village, Ngadirojo District, Wonogiri Regency ($p = 0.079$). The attitude which is not significantly related in this research means that the manifestation of an attitude into a real action requires supporting factors or enabling conditions such as facilities and support from other parties. This study is in line with Simanjuntak's (2009) study which states that attitude is not related to defecation behavior.

This research is in line with Widowati's research (2015) which shows that the attitude variable obtained p value = 0.000, the statistical test results show the value of $p < 0.05$, which means that there is a relationship between attitude and open defecation (BABS) in the Work Area of the Health Center for Kontakman II Sragen Regency. In line with pambudi's research (2019), a value is obtained p-value 0.001 ($p < 0.005$), which means that there is a relationship between attitude and open defecation behavior.

The results of the study stated that the respondent's attitude towards the rules regarding open defecation shows more negative attitudes than positive attitudes, especially for respondents who practice open defecation. The main factors that led to the negative

attitude of respondents towards the regulations were a lack of understanding of the contents of the rules of open defecation and disagreement with fines for people who practice open defecation. The negative and positive attitude of the respondents are not the basis for not practicing open defecation.

F. Relationship between Community Habits and Open Defecation Behavior

The results of the analysis used the test chi-square obtained p -value $0.000 < (0.05)$ so that H_0 rejected. This means that there is a relationship between people's habits and the behavior of defecating in the open. RP Value (Risk Prevalens) amounting to 8,049 means that respondents with bad community habits have a risk of defecating in open behavior 8 times greater than respondents with good community habits. The value of 95% CL is 1,236-52,398 with a confidence range of 1,236-52,398.

This research is in line with Pambudi's research (2019) which shows that value p value 0.001 ($p < 0.05$), which means that there is a relationship between bowel habits and open defecation behavior. Likewise with Hastuti's research (2017) obtained values p -value 0.022 ($p < 0.05$), which means that there is a relationship between habit and behavior in open defecation.

The results of the research conducted showed that 82 respondents had bad habits, 60 of them practiced open defecation and 22 respondents defecated in the latrine. Meanwhile, 11 respondents with good habits, 1 of them practiced open defecation and 10 others defecated in the latrine. The main problem that causes people's bad habits is that they practice defecating in the river because they see the behavior of their family members, especially parents who practice defecating in the river. So that this behavior is carried out continuously and becomes a habit that is carried out, it has even become a new culture (hereditary tradition) for the people there

G. The Relationship between Latrine Ownership and Open Defecation Behavior

The results of the analysis used the test chi-square obtained p -value $0.000 < (0.05)$ so that H_0 rejected. This means that there is a relationship between ownership of a latrine and the behavior of open defecation. RP Value (Risk Prevalens) 4,785 means that the respondent with an unhealthy latrine has a 4.7 times greater risk of defecating in open defecation compared to respondents who own healthy latrines. The value of 95% CL is 2,577-8,885 with a confidence range of 2,577-8,885.

This study is in line with Kurniawati's (2015) research showing that there is a relationship between latrine ownership and the behavior of the head of the family in latrine utilization. Qudsiyah et al (2015) show a relationship between latrine ownership and the high OD rate.

The results of research by Paladiang et al (2020) show that there is a significant relationship between latrine ownership and defecation behavior. The results of this study are the same as the opinion of Dwiana, Acand Herawaty, L. (2017), which states that the low coverage of latrine ownership causes the high defecation behavior of coastal communities in South Buton.

This study shows that as many as 54 respondents do not have healthy latrines, 53 of them have open defecation and only 1 respondent does not defecate openly. while 39 respondents have healthy latrines, 8 of them still defecating in the open and 31 others defecating in the latrine. Some respondents who still defecated openly even though they had healthy latrines were due to community habits that had become a culture (hereditary tradition), while those who did not have healthy latrines but did not defecate carelessly they stayed at their relatives' house to defecate. The criteria for healthy latrines are having latrines and septic tanks, there are still many people who have latrines but do not have a septic tank.

CONCLUSION

Based on the results of the research that has been done, it can be concluded that:

1. There is no relationship between education and defecation behavior (open defecation)
2. There is a relationship between work, income, the distance between the house and the river, attitudes towards regulations, latrine ownership and defecation (open defecation) behavior

REFERENCE

- Aminah, A. (2013). Factors Related to Family Latrine Ownership in Sipange Jalu Village, Sayur Matinggi District, South Tapanuli Regency. University of North Sumatra.
- Dewi Chitra, & Nahara, JA (2019). Analysis of Environmental Factors on Defecation Behavior The Community of Lermatang Village, West Southeast Maluku Regency. Infokes, 9 (2), 139–150.
- Kediri District Health Office Kurniawati, L (2015). Factors Influencing the Behavior of the Head of the Family Utilization of latrines in Tambak Lorok fishermen village settlements, Semarang. Semarang State University.
- Nurfita, A. (2016). Relationship between Knowledge Level, Attitude and Income Level with Family Defecation Behavior in Kerjokidul Village, Ngadirojo District, Wonogiri Regency. Journal of Chemical Information and Modeling, 53 (9), 1689–1699.
- Pambudi, USA (2019). Relationship between Population Characteristics and Defecation Behavior Random (Babs) In Kenongorejo Village, Pilangkenceng District, Madiun Regency. STIKes Bhakti Husada Madiun.
- Prasetya Wahyuni. (2018). Determinants of Factors Related to Open Behavior Defecation in Ngampal Village, Sumberrejo District, Bojonegoro Regency. Indonesian Journal of Environmental Health, 17 (2).
- Qudsiyah, WA, Pujiati, RS, & Ningrum, PT (2015). Related factors with the high number of open defecation (OD) in Jember district (study in Sumber Kalong village, Kalisat sub-district). E-Journal of Health Literature, 3 (2), 362–369.
- Rahmadani, RD, & Ridlo, IA (2020). Community Behavior in Fecal Disposal to River in Rangkah Village, Surabaya Community's Feces Disposal Behavior in Rangkah Village, Surabaya, (8) 1), 87–98.
- Teguh Budiaji Setjo, Satyanto Krido Saptomo, YCW (2016). Septic Tank Planning Communal In Suwaru Village, Pagelaran District, Malang Regency, East Java. Journal of Civil and Environmental Engineering, 1 (3), 159–173.
- UPTD Puskesmas Pranggang, Plosoklaten District, Kediri Widowati Regency, NN (2015). Relationship between Characteristics of Home Owners and CHAPTER Behavior Openly (BABS) in the working area of the Sambungan Community Health Center, Sragen Regency. Muhammadiyah Surakarta university.