

## The relationship of community leaders' support and geographic factors with the utilization of healthy latrine

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### Abstract

**Background:** Access to healthy toilets in Kuala Patah Parang Village is the lowest in Sungai Batang District, namely around 12%. There are still many people who defecate into rivers/beaches. The general aim of the research is to determine the factors related to the use of healthy latrines in Kuala Patah Parang Village. This research is quantitative research with the data obtained relating to the use of healthy latrines only in the form of a description or frequency distribution but also analyzing the relationship between variables.

**Method:** The research design used cross sectional using an observation approach or collecting data simultaneously. The population is all heads of families in Kuala Patah Parang village, totaling 458 families, with a total sample of 210 heads of families. The research measuring tools used are questionnaires and checklist sheets.

**Results:** From the research results, it was found that the role of community figures was 37.6%, geographic factors 91.4%. And the values obtained for several variables were community figures (p value = 0.027), geographical factors (p value = 0.001).

**Conclusion:** There is a relationship between geography and community leaders.

**Keywords:** Healthy latrines, geography and communication leaders.

### INTRODUCTION

Problems in sanitation and hygiene behavior are being faced by developing countries, including Indonesia. While defecation has deep roots in our culture, access or availability of latrines poses many challenges (1). Data obtained from the World Health Organization (WHO) in 2020, states that Indonesia is the second largest country in the world whose population still practices open defecation (2).

The population of Riau Province in 2021 is 6.735 million people or around 2.3% of the total population of Indonesia. From the figures based on BPS (Central Statistics Agency) data, it is stated that only 46.8% of the total population of Indragiri Hilir Regency has a toilet, while Another 53.2% do not have toilets (RisBPS, 2019). With increasingly rapid population growth, it also has an impact on increasing morbidity and mortality rates caused by poor sanitation.

Health Development aims to increase awareness, will and ability to live healthily for

everyone so that the level of a new type of disease has never been identified as high as public health as an investment for socially and economically productive human resources. The Healthy Indonesia Program is implemented to improve the level of public health through health efforts and community empowerment supported by finances and equitable distribution of health services, implemented using a family approach that integrates individual health efforts (UKP) and community health efforts (UKM) in a sustainable manner with family targets based on data and information from the family health profile (3) concerning Guidelines for Implementing the Healthy Indonesia Program with a Family Approach). In the Healthy Indonesia Program with a Family Approach (PISPK) one of the indicators of a healthy family is that the family has clean water facilities and owns or uses healthy latrines. Regarding open defecation, Indonesia is ranked second or in below India in practice, with more than 51 million

Indonesians still practicing open (4). More than 800 million people defecate in the open rather than using latrines despite the global mortality rate due to diarrheal disease is declining, but factors such as poor water and sanitation has a major influence in hundreds of thousands of child deaths, as well as high rates of diarrhea, diarrhea-induced malnutrition and child stunting in children to date (5). Suprpto's research (2017) found that the use of family latrines is one of the elements in preventing the transmission of diarrhea incidents (6). A family latrine or feces disposal site is a building intended to dispose of human waste (feces). Houses that do not have latrines use gardens, rivers, ponds, or other places to defecate (7)

The approach used to change hygiene and sanitation behavior is through community empowerment using the triggering method (8). Through the Minister of Health's circular letter No. 3 of 2014 concerning Community-Based Total Sanitation (STBM) which is addressed to governors to carry out STBM Village/Subdistrict verification in the context of increasing community health needs for sanitation through the triggering method (9). And it is known that based on the 2022 UPT Profile Data of Benteng Health Center, the condition of access to healthy latrines in Sungai Batang District, Indragiri Hilir Regency is as follows: Mugomulyo Village at 92.8%, Benteng Village at 58.4%, Benteng Barat Village at 44.8%, Benteng Utara Village at 42.1%, Pandan Sari Village at 41.8%, Pasenggrahan Village at 41.7%, Kuala Sungai Batang Village at 22.5%, Kuala Patah Parang Village at 12.5%, from these data it can be seen concluded The description of healthy latrine sanitation facilities in Sungai Batang sub-district is quite low on average and especially access to healthy latrines in Kuala Patah Parang Village is the lowest because it is located right on the coast and river, namely only 12.5% (48 families) use healthy latrines.

Therefore, Kuala Patah Parang Village is the main target and pilot for the Sungai Batang District area as one of the steps in

efforts to create villages/sub-districts and sub-districts for Stop Open Defecation (SBABS). In the sanitation sector, this is a problem in Kuala Patah Parang Village, Sungai Batang District, Indragiri Regency, which was triggered on September 14, 2022, with a population of 316 families triggered (10)

One of the efforts to prevent the development of disease and keep the environment clean and healthy is by building latrines in every home. Because latrines are one of the basic human needs, it is expected that everyone to utilize latrine facilities for defecation. The use of latrines will be beneficial for keep the environment clean, comfortable and odorless (11)

Then also other supporting factors are enabling factors (*enabling factors*) such as providing facilities and infrastructure or facilities for health behavior to occur, for example places to dispose of feces or so on, geographical factors, as well as reinforcing factors (*reinforcing factor*) includes supportive attitudes and behavior of officers and community leaders (12).

One of the sub-districts in Indragiri Hilir Regency that carries out STBM is Sungai Batang Sub-district, which consists of 1 sub-district and 7 villages. Among those who have implemented STBM activities are villages, namely Kuala Patah Parang Village which is in the coastal/river area, where up to now the coverage of healthy family latrines in Kuala Patah Parang Village is still the lowest in Sungai Batang District.

Based on the background explained above, the problem formulation of this research is "The relationship between support from community leaders and geographical factors with the use of latrines in Kuala Patah Parang Village."

This research generally aims to determine the relationship between support from community leaders and geographical factors with the use of latrines in Kuala Patah Parang Village.

#### **METHOD**

The research design used by researchers is quantitative with an analytical type, namely systematic, planned and clearly

structured scientific research from the beginning to the final results of the research based on collecting information data in the form of numerical symbols or numbers (13). The approach used in *cross sectional* which is a research design by carrying out measurements or observations at the same time (one time) (14).

This research was carried out in Kuala Patah Patah Parang Village, Sungai Batang District, Indragiri Hilir Regency in March-June 2023. The population in this study was 458 families in 2023. The samples taken in this research were families who had and who did not have Healthy latrines in Kuala Patah Parang Village in 2023 will be 210 families. Samples are determined using *Simple random sampling* by visiting every house in Kuala Patah Patah Parang Village, Sungai Batang District, Indragiri Hilir Regency.

**RESULTS**

**Univariate Research Results**

Table 1

Distribution of Respondents Based on Support from Community Figures for the Use of Healthy Latrines in Kuala Patah Parang Village, Sungai Batang District

Toma Support	Frequency (n)	Percentage (%)
No support	131	62,4
There is support	79	37,6
Total	210	100

Based on Table 1 above, 131 respondents (62.4%) said there was no support from community leaders in using latrines, while 79 respondents (37.6%) said there was support from community leaders in using healthy latrines.

Table 2

Distribution of Respondents Based on Geographic Factors on the Use of Healthy Latrines in Kuala Patah Parang Village, Sungai Batang District

Geographic Factors	Frequency (n)	Percentage (%)
By the river	192	91,4
Not by the river	18	8,6
Total	210	100

Based on Table 2 above, 192 respondents (91.4%) live on the riverbank, while 18 respondents (8.6%) do not live on the riverbank.

**Bivariate Research Results**

Table 3. Relationship between support from community figures and the use of healthy latrines in Kuala Patah Parang Village

Toma Support	Utilise		Toilet		Total	p.value	OR (95% CI)
	No		Of				
	n	%	n	%	n	%	
There is support	33	41,8	46	58,2	79	100	0.336 (0,782-2,411)
No Support	65	49,6	66	50,4	131	100	
Total	98	46,7	112	53,3	210	100	

The results of the analysis of the relationship between support from community leaders for the use of healthy latrines in Kuala Patah Parang village showed that as many as 46 (58.2%) had support from community leaders who used

healthy latrines, while among those who did not have support from community leaders, there were 66 (50.4%) who use healthy latrines.

Table 4: Relationship between geographical factors and the use of healthy latrines in Kuala Patah Parang Village

Geographic Factors	Utilise		Toilet		Total		p.value	OR (95% CI)
	No		Of					
	n	%	n	%	n	%		
By the river	74	56,9	56	43,1	130	100	0.001	3,083 (1,708-5,567)
Not beside the river	24	0,0	56	70,0	80	100		
<b>Total</b>	<b>98</b>	<b>46,7</b>	<b>112</b>	<b>53,3</b>	<b>210</b>	<b>100</b>		

**DISSCUSION**

**Relationship between Support from Community Leaders and Utilization of Latrines in Kuala Patah Parang Village, Sungai Batang Sub-district.**

Based on Table 3, the results of the analysis show that the statistical test results are *chi square* value obtained *p value* = 0,270 This means that there is no relationship between the support of community leaders for the use of latrines in Kuala Patah Parang Village, Sungai Batang District. In line with Febrian's research (2015), *p value* = 0.400 indicates that there is no significant relationship between the support of community leaders and religious leaders in the utilization of latrines in the coconut plantation area. The results of the analysis using the N-PAR (Mann-Whitney) test to see the relationship between the support of community leaders and latrine ownership obtained a *p-value*=0.604 (*p-value*>0.05) which means that there is no significant relationship between the support of community leaders and latrine ownership. This study is in line with previous research which states that community leaders in supporting the cessation of open defecation are still lacking (68.1%). The results of multivariate analysis from the previous study showed no effect of the role of community leaders on latrine ownership. The statistical test results obtained a *p-value*=0.794, which means that open defecation is not caused by a lack of support from community leaders (15)

Based on Yulizar et. al study showed that the results showed that there was no significant relationship between employment (*p-value*=0.604), family monthly income (*p-*

*value*=0.118), and support from community leaders (*p-value*=0.615) on latrine ownership. In conclusion, there is no relationship between employment factors, family monthly income, and support from community leaders for latrine ownership in Aceh Barat Daya District, Nanggroe Aceh Darusalam province. Village to district governments can offer policies that ensure that every house, owned or rented, must be equipped with proper sanitation facilities (16)

The support of community leaders in the case of this research is community involvement and participation in development, namely community participation in developing their area, especially in the health sector, other factors that are less supportive are weak information system, limited regional ability to set development priorities, unbalanced resources and workload, low level of cooperation between all sectors and optimizing community participation. Those who are classified as community leaders are all people who have influence in the local community, both formal (RT Head, RW Head, Hamlet Head, Village Head, etc.) and non-formal figures (religious leaders, traditional leaders, youth leaders), these community figures is a great force that is able to move society in every development effort (8)

Based on the results of the questionnaire given to respondents, it was found that community leaders, in this case community leaders in Kuala Sungai Batang Village, did not encourage and motivate enough so that they did not play a role in open defecation behavior, so their contribution was not in the use of latrines. Because people pay more attention to the instructions of the village government and

Health Officers. In line with Anggoro research (2015),  $p$  value = 0.400 shows that there is no significant relationship between the support of community leaders and religious leaders in the use of latrines in coconut plantation areas (17). This study is in line with the results of Kurniawati's research (2017), which shows that there is no relationship between the support of community leaders and the utilization of healthy latrines, with a  $p$  value = 0.548 (18)

The position of community leaders is obtained because of their individual knowledge, ethical wisdom, and success in social life. The wisdom and knowledge possessed by community leaders is often a role model for the community in accordance with their respective fields. Because of their activities, characteristics and skills, community leaders are respected and revered by the community (19). In relation to socio-cultural relations, especially in rural areas, a community leader has a very dominant influence in policymaking. Community leaders also play a role in providing support. Support from community leaders can be divided into emotional support, appreciative support, instrumental support and informative support (20). Emotional support is indicated by expressions of empathy, care and concern. Appreciative support is indicated by expressions of respect and encouragement to move forward. Instrumental support is indicated by providing direct assistance according to community needs. Informative support is characterized by providing direction, advice, instructions and feedback.

#### **Relationship between geographical factors and latrine utilization in Kuala Patah Parang Village, Sungai Batang Sub-district.**

Based on Table 4, the results of the analysis show that respondents who are on the river coast will be 14 times at risk of not having and using a healthy latrine, the results of statistical tests using were obtained  $p$  value  $0.001 < \alpha 0.05$  then  $H_0$  is rejected, meaning that there is a relationship between geographical factors and latrine use in Kuala Patah Parang Village, Sungai

Batang District. The geographical factor in this research is the presence of respondents on the coast/riverbank of the river basin or not on the river coast.

The results of research by Agustyaningsih et al (2020) There is a significant relationship between physical environment with open defecation behavior, with the category in the relationship in in the strong category. The physical environment of the community in Bumiaji District, Gunungsari Village is still not good with the number of respondents amounting to 68 respondents with a percentage of results (87%). After observing each house, it was found that these results were proportional to the physical condition of clean water facilities, the physical condition of fecal or toilet disposal facilities, the physical condition of landfill facilities, the physical condition of wastewater disposal facilities, and the physical condition of drainage channels which were still far from good (21)

From the results of this research, it is very closely related to the existence of society. And several respondents stated "*It's better and faster to defecate in the river at home*" also supported by local community habits. Communities who live near rivers are a supporting factor for open defecation by using rivers as MCK activities (bathing, washing, toileting) without paying attention to the impacts such as diseases that most often occur due to open defecation into rivers, such as diarrhea, worms and disease. -other diseases that can result in death.

#### **CONCLUSIONS**

Based on the results of research conducted on "Factors Associated with the Use of Healthy Latrines in Kuala Patah Parang Village" the following conclusions can be drawn:

1. There is no relationship between the support of community leaders in the use of healthy latrines in Kuala Patah Parang Village
2. There is a relationship between geographical factors and the use of healthy latrines in Kuala Patah Parang Village.



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## REFERENCES

1. Kumar L, Lal P, Kumar D, Kumar J, Kumar S. Study of factors associated with open defecation in a rural area of Nalanda District. *Int Arch Integr Med*. 2017;4(8):64–7.
2. Fitriarningsih, Wahyuningsih S. Analisis Faktor-Faktor Yang Mempengaruhi Perilaku Buang Air Besar Sembarangan (Babs). *J Sanitasi dan Lingkungan* [Internet]. 2020;1(2):52–7. Available from: <https://e-journal.sttl-mataram.ac.id>
3. Peraturan Menteri Kesehatan Republik Indonesia. Peraturan Menteri Kesehatan Republik Indonesia Nomor 39 Tahun 2016 Tentang Pedoman Penyelenggaraan Program Indonesia Sehat Dengan Pendekatan Keluarga. 2016.
4. UNICEF. Kemajuan dalam air minum dan sanitasi: Pembaharuan Program Pemantauan Bersama 2014. Jenewa UNICEF.: Jenewa: UNICEF; 2014.
5. Orgill-Meyer J, Pattanayak SK, Chindarkar N, Dickinson KL, Panda U, Rai S, et al. Long-term impact of a community-led sanitation campaign in India, 2005–2016. *Bull World Health Organ*. 2019;97(8):523-533A.
6. Suprpto. Hubungan Sanitasi Lingkungan Dengan Kejadian Diare Pada Lanjut Usia Di Kelurahan Barombong Kecamatan Tamalate Kota Makassar. *J Ilm Kesehat Sandi Husada*. 2017;5(2).
7. Hayana H, Raviola R, Aryani E. Hubungan Cakupan Kepemilikan Jamban di Kelurahan Kampung Baru Kota Pekanbaru. *J Kesehat Glob*. 2020;3(1):9.
8. Meiridhawati. Faktor yang berhubungan dengan pemanfaatan jamban. 2014;
9. Departemen Kesehatan RI. Peraturan Menteri Kesehatan Republik Indonesia Nomor 3 Tahun 2014 Tentang Sanitasi Total Berbasis Masyarakat. 2014.
10. Pemerintah Kabupaten Indragiri Hilir. Aplikasi STBM Smart Sanitarian Kecamatan Sungai Batang Kabupaten Indragiri Hilir, versi 3.0.
11. Kurniawati LD. Faktor-Faktor Yang Mempengaruhi Terhadap Perilaku Kepala Keluarga Dalam Pemanfaatan Jamban Di Pemukiman Kampung Nelayan Tambak Lorok. Skripsi Jur Ilmu Kesehat Masy Fak Keolahragaan Univ Negeri Semarang. 2015;
12. Notoatmodjo S. Promosi Kesehatan & Ilmu Perilaku. Jakarta: Rineka Cipta. 2019.
13. Prol. Dr. Bucharl Lapau dr. IIPIL. No metode penelitian kesehatan. 2015.
14. Notoadmojdo S. Metodologi Penelitian Kesehatan. 2018. 1–155 p.
15. Barliansyah, Efendy I, Syamsul D. Faktor yang mempengaruhi stop buang air besar sembarangan di wilayah kerja Puskesmas Simeulue Barat. *J Kesehat Ceadum*. 2019;2014(4):2–31.
16. Yulizar, Santosa H, Nurmaini, Indirawati, Malem S, Pramesona, et al. Hubungan Faktor Pekerjaan, Pendapatan Keluarga, dan Dukungan Tokoh Masyarakat dengan Kepemilikan Jamban. 2022;13:80–5.
17. Anggoro FF, Khoiron K, Ningrum PT. Analisis Faktor yang Berhubungan dengan Pemanfaatan Jamban Di Kawasan Perkebunan Kopi (Analysis of Factors Associated with the Use of Toilets At Coffee Plantation Region). *Pustaka Kesehat* [Internet]. 2015;3(1):171–8. Available from: <https://jurnal.unej.ac.id/index.php/JPK/article/download/2521/2030>
18. Kurniawati LD, Windraswara R. Faktor-Faktor yang Berpengaruh terhadap Perilaku Kepala Keluarga

- dalam Pemanfaatan Jamban di Pemukiman Kampung Nelayan Tambaklorok Semarang Public Health Perspective Journal. Volume 2 Nomor 1. Public Heal Perspect J. 2017;2(1):72–9.
19. Porawouw R. Peran Tokoh Masyarakat Dalam Meningkatkan Partisipasi Pembangunan (Studi Di Kelurahan Duasudara Kecamatan Ranowulu Kota Bitung). Polit J Ilmu Polit. 2016;5(1):1–17.
  20. Akbar MA, Gani HA, Istiaji E. Dukungan Tokoh Masyarakat dalam Keberlangsungan Desa Siaga di Desa Kenongo Kecamatan Gucialit Kabupaten Lumajang. Jamber U, Ed Jamber.
  21. Agustyaningsih T, Kurnia AD, Larasati RY. Hubungan Pengetahuan tentang Jamban Sehat dan Lingkungan Fisik dengan Perilaku Buang Air Besar Sembarangan. Dunia Keperawatan J Keperawatan dan Kesehat. 2020;8(2):130.