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Factors related to open defecation (babs) in the village of Cot Keumude, Kec. Woyla, West Aceh Regency year 2023

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ABSTRACT

Indonesia is a country with a population that still practices open defecation in various open areas. According to WHO data, Indonesia is included in 61 countries in the world where more than 5% of the population still practice open defecation. In the case of open defecation, Aceh Province is classified as having the highest open defecation and data from the Ministry of Health states that out of 6502 villages where people still practice open defecation in open areas, only 3% of villages are free from open defecation in 2017. This has led to an increase in the spread of diarrheal disease in the Aceh region. The Aceh Provincial Health Office revealed that the impact of open defecation resulted in a high number of diarrhea sufferers reaching 256,386 people with an average of 13% per year. Cot Keumude Village, Woyla District, West Aceh District is one of the villages that still causes open defecation problems and is one of the villages where most people defecate in open areas. It is known that Cot Keumude Village is occupied by 76 family cards (KK), while 31 families have facilities that comply with the Ministry of Health standards and 46 families do not have facilities. This study aims to look at the factors associated with open defecation (BABS) behavior in Cot Keumude Village, Woyla District, West Aceh District. This study uses a descriptive quantitative research method with a cross sectional approach, while the univariate and bivariate analysis methods are through the chi square test. The results showed that the knowledge variable was p-value = 0.009, the support variable from community leaders was p-value = 0.000, the education variable was p-value = 0.001 and economic status was p-value = 0.001. These results indicate that the variables of knowledge, support from community leaders, education and economic status are significantly related to open defecation behavior in the village of Cot Keumude.

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1. INTRODUCTION

The development of the current ultramodern era still raises hygiene problems for citizens in various countries. Sanitary behavior of citizens and local residents regarding hygiene in defecation (BAB) is still carried out haphazardly. Recorded in 2019 World Health Organization (WHO) data,

around 673 million people still defecate in open places or often referred to as open defecation (open defecation). According to (Puspitasari & Nasiatin, 2021) sanitation of open defecation (BABS) is an unhealthy act by throwing feces or feces in rivers, beaches, fields or other open areas and leaving it like that so that it is contaminated by clean water, soil, air and the surroundings. Therefore, this problem is one of the tasks in various countries around the world to be able to minimize people practicing open defecation and improve health status in order to achieve the SDG'S target by 2030 (Putra & Dewi, 2021).

According to (Talakua et al., 2020) there are many factors that can affect health status including environmental area factors, community behavior, ways of serving health and genetics. The environment is one of the major causes that can affect the health of both individuals and communities. People in rural and urban settings may be negatively impacted by a lack of health, economic and technological literacy, which can lead to unsafe environments and poor lifestyle choices (Talakua et al., 2020). Given that the topic is a socio-cultural issue, open defecation may be one of Indonesia's health challenges as this country seeks to improve the level of public health. People are reluctant to install latrines in their homes because of the culture of defecating in public places (Juliana et al., 2022).

(Puspitasari & Nasiatin, 2021) stated that a number of variables, including latrine ownership, awareness, attitude, role of officials, availability of funds, etc., influenced the behavior of defecating in public places in the residents' environment. This case is consistent with previous research (Wijayanti et al., 2016) which found a correlation between open defecation behavior and knowledge about latrines in the general public, as well as between the availability of facilities, attitudes, and actions. Apart from that, another study by (Putra & Dewi, 2021) also stated that the people of Nanga Village still have low education, so this is a factor for negative attitudes, most of the people continue to defecate in rice fields, gardens, rivers and along the tracks. To anticipate these problems, the government through the Ministry of Health issued Minister of Health Decree No. 3 of 2014 regarding community-based total sanitation (STBM). The hope is that through the establishment of STBM, the government can change people's behavior towards the habit of open defecation in open areas (Anzelina et al., 2022).

One country where people still defecate openly in many public spaces is Indonesia. Data from WHO shows that Indonesia is one of 61 countries where more than 5% of the population still defecate in the open (WHO & UNICEF, 2019). Meanwhile, based on data from Indonesia (Ministry of Health RI, 2020), approximately 21,021,630 (62.62%) Indonesians still practice open defecation. The impact that can occur if open defecation is allowed to continue to increase will cause disease outbreaks, child mortality, human resource development and a decrease in regional health levels (Sanggita & Dean, 2018).

In the case of open defecation, the province of Aceh is classified as having the highest open defecation and data from the Ministry of Health states that out of 6502 villages throughout Aceh province, only 3% of villages were free from open defecation in 2017. Meanwhile, BPS data reveals this is because there are 24.7% in Aceh province. do not have latrines in rural areas and there are also 5.6% of urban residents who still do not have latrines (Juliana et al., 2022). This health problem is what causes the outbreak of diarrheal disease in the Aceh region. In a study (Barliansyah et al., 2019) the Aceh Provincial Health Office revealed that the impact of open defecation caused a high number of diarrhea sufferers up to 256,386 people with an average of 13% per year.

Cot Keumude Village, Woyla District, West Aceh District is one of the villages that still causes open defecation problems and is one of the villages where most people defecate in open areas. Based on data from the UPT Puskesman Kuala Bhee, Cot Keumude Village which is occupied by 76 family cards (KK). It is known that there are 46 households that do not have toilet facilities that meet health standards, while the remaining 31 households already have toilet facilities that are recommended to meet health standards as determined by the Indonesian Ministry of Health. From the results of initial observations, it was concluded that there were several factors that made the community not have latrines according to health standards, thus encouraging people to practice open defecation in open areas, which were caused by a lack of education about health, lack of knowledge and also low income or economy so that having a latrines was not a priority. for them.

Researchers are interested in conducting research that seeks to identify the causes of open defecation (BABS) in Cot Keumude Village, Woyla District, West Aceh Regency based on previous research and the problems encountered. This research is expected to be able to provide an overview to other parties about environmental health in Cot Village Keumude.

2. METHOD

This type of descriptive quantitative research was used in this study. The goal is to determine how the relationship between the dependent variable and the independent variable. To determine the relationship between the two variables, the design used is a cross sectional approach. In West Aceh District, Cot Keumude Village, the study was conducted between September 2022 and January 2023. All 76 families of Cot Keumude Village made up the study population, and a proportional sampling approach was used to select the sample. The sample in this study were 46 heads of households who did not have toilet facilities. Instruments for obtaining research data using questionnaires and observation. Through the application of the chi square statistical test, univariate and bivariate data analysis was carried out. The chi square test is useful for determining the relationship between the independent and dependent variables; if the p-value is smaller or equal to $\alpha \leq 0.05$ then the independent variable has a significant effect on the dependent variable; if the p-value $\alpha > 0.05$, then there is no significant effect..

3. RESULTS AND DISCUSSION

Cot Keumude Village, Wolya District, West Aceh District was used as the location of this research. Although latrines are available, including latrines that meet health requirements such as permanent healthy latrines (JSP) and latrines that are not, such as semi-permanent healthy latrines (JSSP), the high prevalence of local residents defecating in public places is investigated to understand the relationship and its effects. similar to a pit latrine. Research analysis in terms of knowledge, community leadership support, education, and income. The study began by distributing questionnaires to participants, and using the chi square test in univariate and bivariate analysis to obtain research results.

Univariate analysis

In analyzing the univariate results of the respondents' questionnaires, the researcher used the SPSS tool. What follows is a recapitulation of univariate analysis on the distribution of education, income, knowledge and support from community leaders for open defecation behavior.

Table 1. Distribution of Respondents to Open Opening Factors

Variable	Frequency	Percentage (%)
Knowledge		
Good	13	43%
not good	33	57%
Amount	46	100%
Community Leader Support		
There is Support	19	41%
less Support	27	59%
Amount	46	100%
Education		
Educated	9	43%
Less Educated	37	57%
Amount	46	100%
Economic/Earning Status		

>UMP	31	67%
≤ UMP	15	33%
Amount	46	100%

Based on the recapitulation above, it is known that 13 respondents (43%) have a high level of knowledge, while 33 respondents (57%) tend to have a lower level of knowledge. Regarding the support factor of community leaders, it is known that 19 (41%) chose support, while 27 people (59%) did not receive support. Meanwhile, in terms of education, there were 9 (43%) educated respondents and 37 (57%) uneducated people. In addition, when viewed from the economic/income status, there were 31 (67%) respondents with income >UMP and 15 (33%) earning ≤UMP.

Bivariate Analysis

Analysis of the Relationship between Knowledge and BABS Behavior

The researcher used 10 valid and reliable questionnaires to ask respondents about their awareness of open defecation to analyze the relationship between knowledge and behavior in Cot Keumude Village. The following table shows the results of the chi square test after data collection

Table 2. The relationship between knowledge and open defecation behavior

Knowledge	BABS behavior				Total		*p-value*
	Yes		No		F	%	
	F	%	F	%			
Good	9	43%	20	80%	29	63%	0,009
Not good	12	57%	5	20%	17	37%	
Total	**21**	**100%**	**25**	**100%**	**46**	**100%**	

The relationship between knowledge components and open defecation practices obtained p-value = 0.009 based on the findings of the chi square test. This shows that the H0 hypothesis is rejected and the H1 hypothesis is accepted, with a p value of 0.009 ≤ 0.05. This decision implies that the knowledge factor has a significant relationship to open defecation behavior in the people of Cot Keumude Village.

Analysis of the Relationship between Community Leaders' Support and Open Opening behavior

In analyzing the relationship between community leaders' support for open defecation behavior in Cot Keumude Village, researchers applied 5 valid and reliable questionnaire instruments to submit to respondents in order to find out whether or not community leaders supported open defecation behavior. Through the chi square test, the following results are obtained.

Table 3. Relationship between Community Leaders' Support and Open Opening Behavior

Support	BABS behavior				Total		*p-value*
	Yes		No		F	%	
	F	%	F	%			
There is Support	3	20%	24	77%	27	59%	0,000
Lack of Support	12	80%	7	23%	19	41%	

Total	**15**	**100%**	**31**	**100%**	**46**	**100%**

From the results of the chi square test, the relationship between the support of community leaders for open defecation behavior obtained a p-value = 0.000. Shows that p value = 0.000 ≤ 0.05, so it can be concluded that H0 is rejected and H1 is accepted. This decision implies that the support of community leaders has a significant relationship with open defecation behavior in the community of Cot Keumude Village.

Analysis of the Relationship between Education and BABS Behavior

In analyzing the relationship between education and open defecation behavior in the village of Cot Keumude, the researchers classified educational status into 2 categories. Respondents in the non-educated category, elementary and junior high school graduates, the researchers assumed were "uneducated", while the respondents with high school/vocational school, bachelor's, master's and doctoral degrees were considered "educated". Through these data the chi square test obtained the results of data processing as presented in the following table.

Table 4. Relationship between education and open defecation behavior

Education	BABS behavior				Total		*p-value*
	Yes		No		F	%	
	F	%	F	%			
Educated	5	28%	22	79%	27	59%	
Less Educated	13	72%	6	21%	19	41%	0,001
Total	**18**	**100%**	**28**	**100%**	**46**	**100%**	

Source: Data Processing 2023

The results of the chi square test on the relationship between education and open defecation behavior obtained a p-value = 0.001. Shows that p value = 0.001 ≤ 0.05, so it can be concluded that H0 is rejected and H1 is accepted. This decision implies that education has a significant relationship with open defecation behavior in the people of Cot Keumude Village.

Analysis of the Relationship of Economic Status/Income to Open Opening Behavior

In analyzing the relationship between educational factors and open defecation behavior in Cot Keumude village, the researcher clarified 2 types of respondents' education. Respondents with income > Rp. 3,413,666/month is considered a good income (> Aceh UMP) while respondents with income ≤ Rp. 3,413,666/month, it is assumed that the income is not good (≤ UMP Aceh). Through data collection, the chi square test obtained the results of data processing as presented in the following table.

Table 5. Relationship between economic status/income and open defecation behavior

Income	BABS behavior				Total		*p-value*
	Yes		No		F	%	
	F	%	F	%			
>UMP Aceh	10	43%	21	91%	31	67%	
<UMP Aceh	13	57%	2	9%	15	33%	0,001
Total	**23**	**100%**	**23**	**100%**	**46**	**100%**	

From the results of the chi square test, the relationship between economic status/income factors and open defecation behavior obtained a p-value = 0.001. Shows that p value = 0.001 ≤ 0.05, so it can be concluded that H0 is rejected and H1 is accepted. This decision implies that economic status/income has a significant relationship with open defecation behavior in the people of Cot Keumude Village.

Research Discussion

Relationship between knowledge and open defecation behavior in Cot Keumude Village

The results of the research on the relationship between knowledge and open defecation behavior in Cot Keumude Village showed that the knowledge factor on open defecation behavior obtained p-v (0.009) ≤ 0.05 so that it was concluded that knowledge had a significant relationship to open defecation behavior. This implies that the more people have knowledge of open defecation in the village of Cot Keumude, the less open defecation behavior will be and vice versa. This result is in line with the results of research (Talakua et al., 2020) which states that the community's understanding of open defecation behavior is very low, so this has an influence on increasing open defecation behavior in that environment. According to (Fitrianingsih & Wahyuningsih, 2020) knowledge is a domain factor that can shape behavior and awareness, if a person has knowledge of an attitude then his awareness will be positive so that he can change his behavior for the better. Therefore, it is necessary to increase knowledge about environmental health to the community, especially in open defecation in Cot Kuemude Village. Knowledge to the community can be increased through outreach, giving understanding to the community, distributing health posters and so on.

The Relationship between Community Leaders' Support for Open Opening Behavior in Cot Keumude Village

The results showed that the support factor of community leaders for open defecation behavior obtained p-v (0.000) ≤ 0.05 so it can be concluded that the support of community leaders has a significant relationship to open defecation behavior. This means that the more community leaders care about giving support to the community regarding open defecation in Cot Keumude village, the more open defecation behavior will decrease and vice versa. According to (Anzelina et al., 2022) support is an encouragement from interpersonal relationships in terms of calm, assistance, benefits and pleasure which can be in the form of verbal or non-verbal information received by someone from the figure they lead. The results obtained are in line with the results of research by (Kurniasari, 2021) which statistically community support can influence open defecation behavior in the public health environment. If there is support from community leaders, the behavior of open defecation in the community will decrease and if community leaders allow open defecation then this behavior will continue to occur. Support from community leaders can come from village heads, village elders, RT heads, RW heads and figures who are considered important in the community. Seeing the importance of the role of community leaders, it is necessary to support open defecation behavior in the village environment, both individually and in deliberations together. The support is intended not only to provide understanding to the community but also to provide latrines facilities and infrastructure to the community to reduce open defecation rates in village environments.

Relationship between education and open defecation behavior in Cot Keumude Village

From the results of the study, the relationship between educational support factors and open defecation behavior obtained p-v (0.001) ≤ 0.05 so that it can be concluded that community education has a significant relationship to open defecation behavior. This shows that the lower the community's education, the more open defecation behavior will also increase and vice versa. The results of the research are in line with research by (Aulia et al., 2021) which states that education is one of the factors that causes open defecation behavior. Someone who has a higher education will always have the view and awareness that open defecation behavior is not appropriate. This is because his insight into knowledge is broader than if he is not educated. However, according to (Budiman, 2019), someone who is uneducated is not absolutely knowledgeable, it's just how that person acquires his knowledge.

Relationship of Economic Status/Income to Open Opening Behavior in Cot Keumude Village

The results of the research on the relationship between economic status factors and open defecation behavior obtained p-v (0.001) ≤ 0.05 so that it can be concluded that the economic status/income of the community has a significant relationship to open defecation behavior. This implies that the greater the community's economic income, the lower the open defecation behavior in that environment, and vice versa. In line with research by (Juliana et al., 2022) which revealed that the results of people's income levels had a significant effect on open defecation behavior. In addition, research (Warlenda et al., 2020) also revealed the same thing, where as people's income levels increase, open defecation behavior will also decrease. This is because people with high incomes are able to provide the facilities and infrastructure needed for defecating independently

4. CONCLUSION

Based on the results and discussion of the research above regarding the relationship between factors that influence open defecation behavior in Cot Keumude Village, Woyla District, West Aceh Regency, it can be explained based on factors of knowledge, support from community leaders, education, and economic/income status. From the analysis, it is known that the relationship between knowledge factor and open defecation behavior has a significant effect. This implies that the more knowledgeable the community is, the lower the level of open defecation in Cot Keumude village. If viewed from the support factor of community leaders, it is known that through statistical tests the support of community leaders influences open defecation behavior. Support from community leaders can come from village heads, village elders, RT heads, RW heads and figures who are considered important in the community. In addition, educational factors also have an influence on open defecation behavior in the village of Cot Keumude. This shows that the lower the community's education, the more open defecation behavior will also increase and vice versa. Someone who has a higher education will always have the view and awareness that open defecation behavior is not appropriate. This is because his insight into knowledge is broader than if he is not educated. Meanwhile, the relationship between economic status/income on open defecation behavior in Cot Keumude Village shows that the economic status/income factor has a significant relationship to open defecation behavior. Communities with high incomes are able to provide the facilities and infrastructure needed for defecation independently.

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