Behavioral Determinants Of Open Defecation Free To Families In Soligi Village

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Abstract.

Indiscriminate defecation (BABS) is an unhealthy behavior which is often encountered in everyday life. Until now, open defecation behavior in Soligi Village South Obi District is still being carried out. The purpose of this study was to analyze the determinants of open defecation free behavior in families in Soligi village. The type of research used is quantitative research with a cross sectional design. The sample was taken proportionally with a simple random sampling technique calculated using the Lemeshow formula with a proportion of 0.2 95% confidence level and 0.1 storage degree so that 135 families of samples could be found from a total population of 679 families, to avoid drop out samples plus 10% so that a sample of 145 families was obtained. Data analysis used univariate and bivariate with che-square test and p value < 0.05. The results of the study concluded that there was a significant relationship between knowledge, p-value = 0.001 less than = 0.05, attitude obtained p-value = 0.000 less than = 0.05, the availability of clean water obtained p-value = 0.000 less than = 0.05, the role of health workers obtained p-value = 0.000 less than = 0.05, and the role of community shops obtained p-value = 0.000 less than = 0.05 with open defecation behavior (BABS).

Keywords: Determinants of Behavior, ODF, Family

I. INTRODUCTION

Environmental problems in Indonesia are complex and difficult to overcome. One of them is the indiscriminate disposal of feces, which is still widely practiced by some Indonesians. Data from the WHO/UNICEF Joint Monitoring Program, as many as 55 million people in Indonesia still practice open defecation [1]. Indiscriminate defecation (BABS) is an unhealthy behavior that is still often seen in everyday life. The national target of the 2015-2019 RPMJN targets proper sanitation in 2019 to increase to 100% (2014: 60.4%) [2]. However, the phenomenon of open defecation in society is still a challenge in Indonesia. The challenges faced by Indonesia related to health development, especially in the field of hygiene and sanitation are still very large. For this reason, an integrated intervention through a total sanitation approach is needed. In order to support the achievement of the RPJMN targets including Universal Access 2019, by the end of 2019 100% of villages/kelurahan must have implemented STBM, and 50% of STBM villages/kelurahan must have achieved verified SBS/ODF. Based on Farouk 2016 states that there are several dangers to health caused by poor sanitation, includingn:soil, water and food contamination, typhus, dysentery, cholera, and diarrhea [3].

The proportion of open defecation (OD) behavior in Indonesia is the second highest after India, which is 58,000,000 people who still practice ODF behavior. The graph of the achievement of Open Defecation Free (ODF) villages in Indonesia shows the percentage of villages that do not have ODF status at 87% or 50,533 villages [4]. Recognizing this, the global commitment has set out one of the goals of the SDGs agenda, namely increasing access to safe drinking water sources and sanitation/healthy latrines for the entire population. Sanitation is one of the SDGs sustainable development goals, although in the field, progress is still slow. The National Strategy for STBM Policy refers to an accelerated strategy that aims to achieve the SDGs targets. In fact, around 2.3 billion people in developing countries still lack access to better sanitation facilities and nearly one billion people practice open defecation. Community Based Total Sanitation (STBM) is an approach that is still popular and is used by more than 60 countries. STBM is a widely applied rural behavior change approach to ending open defecation. Admittedly, this revolutionary approach is cost effective. Generally STBM is used to promote sanitation in low-income communities [5]

In Indonesia, the achievement until the end of 2015 for safe drinking water was 58.92% and healthy latrines 67.95%. It is hoped that it will be realized in 2030 (BAPENAS, 2019). The Ministry of Health has developed a community-based total sanitation program (STBM) which consists of five pillars, namely:

stopping open defecation (BABS), washing hands with soap, managing drinking water and household food, securing household waste, and securing liquid waste. household. Some of the obstacles faced are financial, institutional, technical, and community participation [6] The government continues to try to overcome sanitation problems, especially the population's access to healthy latrines. In 2008 the Ministry of Health of the Republic of Indonesia issued Kepmenkes RI number 852/Menkes/SK/IX/2008 concerning the National Strategy for Community-Based Total Sanitation (STBM), which was later strengthened by the Minister of Health Regulation of the Republic of Indonesia Number 3 of 2014 concerning Community-Based Total Sanitation. Community Based Total Sanitation (STBM) is an approach used to change hygiene and sanitation behavior through community empowerment with the triggering method. Total sanitation is a condition when a community does not open defecation (BABS) or Open Defecation Free (ODF) [7].

To maintain good health we must prevent many threats that will harm our health. Another threat to health is the improper disposal of feces (faces and urine). Defecation (BAB) in any place is dangerous, because it will facilitate the spread of disease through flies, air and water. The problem of human waste disposal is a major problem because human waste (feces) is a source of multi-complex disease spread. Several diseases that can be caused by human feces include: typhus, dysentery, cholera, and various worms (bracelets, pins, ropes, ribbons), schistosomiasis, this causes human excreta as a source of infection and is one of the causes of environmental pollution. Hazards to health due to improper disposal of sewage are soil contamination, water pollution, food contamination, and the breeding of flies. Feces from humans who are sick or as carriers of a disease can be a source of infection. The droppings contain disease agents that can be transmitted to new hosts by means of flies [8] In 2015, about half of the population used basic sanitation facilities at home, while 15 percent still practiced open defecation, and 20 percent of schools already had separate toilet facilities for boys and girls. The coverage of adequate drinking water sources is already higher, both at households and schools. Inequality by income level and place of residence is stark, demonstrating the importance of integrating equity principles into policy and practice and further expanding the scope of community-based total sanitation programs [9].

The signing of the 2020 South Halmahera Regency Sanitation Program Cooperation Agreement with the North Maluku Regional Settlement Infrastructure Center through rural sanitation activities. This activity aims to improve access and quality of sanitation (wastewater). Non-Governmental Organizations (KSM) at the village community level who actively participate in preparing action plans and carrying out physical development so as to produce their own facilities and infrastructure related to domestic wastewater that are in accordance with the needs of the community. This sanitation labor-intensive activity which takes place in South Halmahera Regency is located at 10 points, and there is one location in Taba Poma Village that has changed to Silang Village because based on a field survey in Taba Poma Village, there are only 9 households that do not have a septic tank. According to the technical guidelines, the minimum criteria is in one village that does not have a septic tank of 35 families. In Silang Village, based on the survey, there are 115 families who do not have a septic tank [10]. This can affect the behavior of open defecation (BABS) in the community. Soligi Village is one of the villages located in South Obi District, South Halmahera Regency, North Maluku Province with a population of 3302 from 679 families with 79 open defecation (12.21%). Meanwhile, the population of South Obi Subdistrict is 15890 of the 3,756 families who defecate 647 (99.96%.) [11]

Based on the Precede-Proceed Model developed by Green (1980) the behavior of a person or society is determined or formed from three factors, namely predisposing factors, reinforcing factors, and enabling factors. Predisposing factors are manifested in knowledge, attitudes, beliefs, beliefs, values, and so on. The driving factors are manifested in the attitudes and behavior of health workers, parents, peers, teachers, which are the reference group for community behavior. Supporting factors that are manifested in the physical environment, the availability or unavailability of facilities and infrastructure [12] But so far, the factors that cause people in the village to still show Open Defecation Free behavior. Therefore, the author tries to prove what behavioral determinants affect Open Defecation Free. It is hoped that knowing these factors will make it easier for the Puskesmas or health cadres to carry out monitoring and counseling in order to change

people's behavior about Open Defecation Free. In addition, health workers, especially nurses, also get information about factors related to Open Defecation Free behavior.

II. METHODS

This research is a type of quantitative research with a cross-sectional research design, which is a study that studies the relationship between risk factors and effect factors, which makes observations or measurements of variables once and at the same time. The number of affordable population, namely the community in Soligi Village as many as 679 families, the sample was taken proportionally with a simple random sampling technique calculated using the Lemeshow formula with a proportion of 0.2 95% confidence level and 0.1 storage degree so that 135 households could be found, to avoid drop out sample is added by 10% so that a sample of 145 families is obtained.

The independent variable in this study is based on the Green (1980) Precede_Proceed Model, namely the behavior of a person or community is determined and formed from three factors including predisposing factors (Knowledge and Attitudes), driving factors (Ownership of latrines and clean water facilities) and supporting factors (Role of Officers). Health and the Role of Community Stores), while the dependent variable is open defectation behavior. The data in this study were obtained from primary data through interviews with respondents based on research instruments such as a latrine questionnaire as a reference material from the Ministry of Health. For secondary data collection obtained from relevant agencies as supporting data in this study. The data processing process consists of data checking, data coding, data entry and data cleaning. Data analysis used univariate and bivariate with che-square test and p value < 0.05.

III. RESULT AND DISCUSSION

Based on the research results obtained are as follows:

Table 1. Analysis of Frequency Distribution with predisposing factors (Knowledge and Attitudes), driving factors (Ownership of latrines and clean water facilities) and supporting factors (Role of Health Officers and Role of Community Stores) with Open Defection Behavior (BABS).

Variable	F	%
Predisposing Factors		
Knowledge		
Good	73	50,3
Not enough	72	49,7
Attitude		
Positive	80	55,2
Negative	65	44,8
Enabling Factor		
Latrine Ownership		
Yes	76	52,4
Not	69	47,6
Availability of Clean Water		
Available	68	46,9
Not available	77	53,1
Supporting factors		
Role of Health Officer		
Role	90	62,1
Less Role	55	37,9
Community Shop War		
Role	70	48,3
Less Role	75	51,7
BABS Behavior		
Good Behavior	80	55,2
Less Behavior	65	44,0

Table. 1. Shows that based on the results of the research data processing, it can be seen from 145 respondents that 72 (49.7%) lack of knowledge, 65 (44.8%). clean water 77 (53.1%), lack of role of health

workers 55 (37.9%), lack of role of community shops 75 (51.7%), and less open defecation behavior 65 (44.0%). Furthermore, the processing of research data in table 2 regarding the Chi-square analysis of the relationship between knowledge, latrine ownership attitudes, availability of clean water, the role of health workers, the role of community shops with open defecation behavior (BABS).

	BABS Behavior					
Variable	Good		Not e	nough	p-value	OR 95% CI
Predisposing Factors						
Knowledge	n	%	n	%		
Good	50	34,5	29	15,9	0,001	2,86 C1 ; (1,563-
Not enough	30	20,7	42	29,0		18,367)
Attitude						
Good	73	50,3	7	4,8	0,000	215,524 C1;
Not enough	3	2,1	62	42,8		(53,456-868,955)
Enabling Factor						
Latrine Ownership						
Good	51	35,2	25	17,2	0,002	1,448 C1 ; (1,688-
Not enough	29	20,0	40	27,6		11,933)
Availability of Clean						
Water						
Good	58	40,0	10	6,9	0,000	19,011 C1; (8,095-
Not enough	18	12,4	59	40,7		44,647)
Supporting factors						
Role of Health						
Officer						
Good	63	43,4	27	18,6	0,000	2,294 C1 ; (1,574-
Not enough	17	11,7	38	26,2		14,976)
Community Shop						
War						
Good	61	42,1	9	6,2	0,000	27,111 C1 (11,023-
Not enough	15	10,3	60	41,4		66,680)

Table 2. Shows that there is a significant relationship between Knowledge (0.001). Attitude (0.000), Ownership of latrines (0.002), Availability of Clean Water (0.000), Role of Health Officers (0.000) and Role of Community Stores (0.000) with Open Defection (BABS) behavior.

Relationship of Knowledge with Open Defecation Behavior (BABS)

From the results of data processing, it can be seen that respondents have good knowledge of 73 (50.3%). This means that the possibility of respondents having a desire not to practice open defecation (BABS). Good knowledge is needed by respondents to avoid open defecation, this shows that information communication and education are highly optimized. From the results of this percentage, it shows that the knowledge of the community is good, the tendency of the community not to do open defecation is very good. Statistical test results obtained a value of 0.001 less than = 0.05 so that the hypothesis Ha is accepted, it can be concluded that there is a significant relationship between knowledge and open defecation behavior (BABS).

This research is in line with that conducted by Sukma (2018), which states that there is a relationship between knowledge and defecation behavior [13]. According to Lawrence Green's theory, it states that behavioral factors are determined by three main factors, one of which is a predisposing factor in the form of knowledge [14]. Knowledge is the result of knowing and occurs after people sense certain objects. The number of respondents who already have good knowledge and understand the importance of not practicing open defecation (BABS). This is because the puskesmas and cross-sectoral parties carry out triggering and monitoring activities as well as providing information and education communication (KIE) to the community to change the behavior of respondents so that they can avoid open defecation (BABS).

Relationship between Attitude and Open Defecation Behavior (BABS)

Based on the results of the study, it showed that respondents had a positive attitude not to practice open defecation (BABS) of 80 (55.2%). This is because attitude is a reaction or response that is still closed from the respondent to a stimulus or object. Attitudes cannot be seen directly, but can only be interpreted

beforehand from closed behavior. The results of statistical tests obtained a value of 0.000 so that the hypothesis Ha is accepted, it can be concluded that there is a significant relationship between attitudes and open defecation (BABS). This study is in line with the research of Ronaldi Palading al et (2020), which states that there is a significant relationship between attitudes towards open defecation behavior and p-value = 0.000 < 0.05. Attitude is an opinion as well as a person's views and perceptions about an object that precedes his actions [15]

An attitude has not automatically manifested itself in action, for the realization of an attitude to become a real action, enabling conditions are needed or called supporting factors. Attitude can describe a person's likes or dislikes towards objects. Attitudes are often obtained from one's own experience or from other people who most closely make a person approach or stay away from other people or other objects. The existence of this attitude is due to the heterogeneous social structure and different beliefs of the community, but the negative attitude does not affect the community's desire to change and not open defecation. The STBM implementation has been successfully implemented.

The Relationship of Latrine Ownership with Open Defecation Behavior (BABS)

The results showed that respondents who had latrines were 76 (52.4%), meaning that the availability of health facilities and infrastructure was a supporting factor for the creation of a healthy quality of life. According to lawrence Green in Notoatmodjo (2014), states that facilities and infrastructure can affect a person's behavior. The results of statistical tests obtained a value of 0.002, so that the hypothesis Ha is accepted, it can be concluded that there is a significant relationship between respondents' latrine ownership and open defectaion behavior. This is in line with the research of Ronaldi Paladiang al et, (2020), which shows that there is a significant relationship between latrine ownership status and open defectaion behavior with p-value = 0.000 < 0.05. Owning a latrine greatly affects the use of a latrine by a family. Open defectation behavior is highly dependent on the available facilities and infrastructure such as latrines. Ownership of healthy latrines with open defectation behavior is closely related.

Relationship of Clean Water Availability with Open Defection Behavior (BABS)

From the results of data management, it can be seen that respondents with the availability of clean water are 68 (46.9%), this indicates that open defecation behavior is more common in the group of respondents with the availability of clean water that is not available compared to the group of respondents with the availability of clean water. The results of statistical tests obtained a value of 0.000 so that the Ha hypothesis is accepted, it can be concluded that there is a significant relationship between the availability of clean water and open defecation (BABS). This is in line with research conducted by Ikhsan at, al (2012) which states that there is a significant relationship between the availability of clean water and the use of latrines, p value of 0.038. Lack of water availability is thought to be one of the reasons for the low level of use of latrines, causing the community to be less motivated to build their own latrines. Therefore, clean water is needed for bathing, washing, and latrine activities. Water is a basic need that is used daily for drinking, cooking, bathing, gargling, cleaning floors, washing kitchen utensils, washing clothes and so on so that we don't get sick or avoid getting sick. In addition, the benefits of using clean water include: 1) avoiding diseases such as diarrhea, cholera, dysentery, typhus, worms, eye diseases, skin diseases or poisoning. 2) every family member is kept clean [16]

The Relationship of the Role of Health Officers with Open Defecation Behavior (BABS)

From the results of data processing, it can be seen that the role of health workers in supporting respondents with open defecation (BABS) is 90 (62.1%). This means that the role of health workers in triggering activities to stop open defecation is not only during triggering activities, but health workers play a role from the beginning of planning to the end of the activity. In this activity, the big role of health workers is not only providing STBM socialization, but building partnerships and making people empower themselves, is their main task. The results of statistical tests obtained a value of 0.000 so that the hypothesis Ha is accepted, it can be concluded that there is a significant relationship between the role of health workers on respondents with open defecation behavior (BABS). The results of this study are in line with research [17] shows that there is a significant relationship between the role of health workers and community participation in triggering open defecation activities with pv = 0.000 and r = 0.005, meaning that the relationship between

the role of health workers and triggering open defecation is very strong. Based on the Law of the Republic of Indonesia concerning Health Workers No. 36 of 2014, that health workers have an important role to improve the maximum quality of health services to the community so that people are able to increase awareness, willingness, and ability to live healthy so as to realize the highest degree of health as an investment. for the development of socially and economically productive human resources [18]

The Relationship of the Role of Community Leaders with Open Defecation Behavior (BABS)

From the results of data processing, it can be seen that the role of community shops on the support of respondents with open defecation behavior is 70 (48.3%). The results obtained in the field are most of the community shops and village heads support the use of latrines. The results of statistical tests obtained a value of 0.000 so that the hypothesis Ha is accepted, it can be concluded that there is a significant relationship between the role of community shops on respondents with open defecation behavior (BABS). This study is in line with research conducted by Dewi (2018), which states that the p-value = 0.006 means that there is a relationship between the role of community shops and the use of latrines.[19]. The support of the community shop is considered important by the head of the family. The head of the family who has a good perception will tend to follow what is done by the community shop, and conversely the head of the family who has a bad perception of the support of the community shop in using the latrine, then they will tend not to do what is said by the household, the community shop. The results of this study are in accordance with Lawrence Green's theory, explaining that the occurrence of a person's behavior is largely determined by factors and one of them is a reinforcing factor, where healthy behavior requires examples from community leaders.[20]

IV. CONCLUSION

Based on the results of the research conducted, it can be concluded that there is a significant relationship between knowledge, attitudes, latrine ownership, availability of clean water, the role of health workers and the role of community shops with open defectaion behavior (BABS).

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