



Determinants of Low Open Defecation Free (ODF) Status in the Implementation of the First Pillar of Community-Led Total Sanitation (CLTS) Program in Panjunan Village, Coastal Area of Cirebon City, Indonesia

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Abstract

Background: Open Defecation Free (ODF) is the first pillar of the Community-Led Total Sanitation (CLTS) program. The ODF achievement in Cirebon City is 82%. However, one area in Cirebon City, namely Panjunan Village, has an ODF achievement of only 70%. This study aims to analyze the causes of low ODF. **Methods:** This study used a qualitative approach with a case study design. Data collection was conducted in June-September 2024. The research subjects were residents of Panjunan Village, Cirebon City. Data were collected through six in-depth interviews and observations.

Results: Based on the research results, there are several indicators that cause low ODF among the residents of Panjunan Village, including: Low literacy about CLTS, minimal support from cadres, as well as low awareness and community participation, in addition to limited sanitation facilities and infrastructure.

Conclusion: Insufficient CLTS literacy, inadequate cadre support, and low community engagement are obstructing the implementation of the first pillar of the CLTS program in Panjunan Village, Cirebon City

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INTRODUCTION

Community-Led Total Sanitation (CLTS) is a program aimed at changing behaviors through community empowerment using a triggering approach (Mulubirhan & Abera, 2014). The CLTS program consists of five pillars: stopping open defecation, washing hands with soap, food and beverage management, waste protection, and liquid waste management (Indonesia Ministry of Health, 2023). Open Defecation Free (ODF), as the first pillar of CLTS, is one of the implementation strategies to achieve the initial stage of total sanitation. ODF means that everyone lives in a place where there is no open defecation (Rusiandy et al., 2018).

Indonesia's environmental sanitation is ranked 9th among ASEAN countries with a coverage percentage of 75% (Pokja PPAS, 2017). In Indonesia, West Java Province ranks 5th in CLTS achievement with a percentage of 71.4% (Statistics Indonesia, 2022). ODF in Cirebon City has reached 82% in 2020, which is considered quite good (Health Department of Cirebon City, 2020). Although the ODF data at the city level of Cirebon is good, there is one coastal area in Cirebon City, namely Panjunan Village, with low ODF coverage, where Panjunan Village only reaches 70% (Health Department of Cirebon City, 2021).

Studies on the determinants of ODF achievement have been conducted in several places. Nurhayati et al. stated that the lack of human resources is the main determinant that causes suboptimal ODF achievement (Nurhayati et al., 2023). Another study, CLTS in NTT in 2017, showed that ODF achievement is supported by community involvement, community support, and community encouragement (Odagiri et al., 2017). In line with this research, Cronin (2017) also identified that social capital plays an important role in ODF achievement with a more systematic and structured approach (Cronin et al., 2017).

Based on these studies, social capital is a major determinant for achieving ODF (Cronin et al., 2017; Odagiri et al., 2017). Therefore, regarding the ODF achievement situation in Panjunan Village, an evaluation of the determinants of low ODF needs to be carried out. The analysis of these determinants

is obtained to provide information about the ODF achievement program.

This study aims to analyze the low ODF in the coastal area of Panjunan Village, Lemahwungkuk District, Cirebon City. The focus of the study is to identify the challenges faced by the community, including limitations in infrastructure, access to sanitation, which influence these behaviors.

METHODS

This research used a qualitative research design. Qualitative research utilizes a systematic and structured scientific method aimed at examining a problem and discovering new, verifiable knowledge about social situations (Lenaini, 2021). A qualitative case study design was adopted to analyze the reasons behind the low ODF rate in the coastal area of Panjunan Village, Lemahwungkuk District, Cirebon City, Indonesia. Data collection for this research was conducted over four months, from June to September 2024.

Six informants were selected as research subjects, including one environmental health officer, one health cadre, one village officer, and three residents from Panjunan Village, comprising two residents and one community leader. The research was conducted in Panjunan Village, Lemahwungkuk District, Cirebon City. Research instruments used to obtain primary data included in-depth interview guides and observation sheets, with aids such as voice recorders, paper or notebooks, writing instruments, and a camera. Secondary data was obtained using data sheets.

In-depth interviews were conducted with four randomly selected residents living in the research location. The selection of subjects was suggested by the health cadre, considering subjects who could communicate about the CLTS program and were willing to be interviewed. In-depth interviews were conducted through visits, adjusted to the respondent's availability, with an interview duration of 10-20 minutes. Key informant interviews involved stakeholders, consisting of two cadres: an environmental health officer from the coastal health center and a health cadre. Interview guides were prepared to facilitate the interview process. The interview

duration was 10-25 minutes for each informant.

The data collection technique in this study used the observation method, which aims to obtain direct information from the research object with or without the aid of tools (Mekarisce, 2020). Observations were conducted systematically by observing the behavior and conditions of Panjunan Village residents. The data obtained was recorded in detail using an observation guide that had been prepared beforehand. This method allowed researchers to accurately describe field conditions.

All interview sessions were recorded, and every word was transcribed. Afterward, coding was performed for all informants to facilitate the research. The next stage involved systematically identifying code repetitions throughout the data set. Subsequently, these codes were grouped into subthemes. After conducting a comparative analysis among

various subthemes, main themes were derived. Statements were presented in Indonesian. For the purpose of presenting the findings, the quotations were translated into English.

RESULTS

The results of in-depth interview presented in Table 1, summarizing the codes obtained from the research, which were then grouped into subthemes and finally into themes. Eight main subthemes emerged from the in-depth interviews: Knowledge about CLTS program, Access to information about the CLTS program, the role of cadres, the role of health workers, community awareness, community participation, facilities, and infrastructure. These eight subthemes were grouped into four themes: CLTS literacy, Support from cadres and health workers, Community awareness and participation, as well as facilities and infrastructure.

Table 1. Quotations of Statements, Subthemes, and Themes from In-Depth Interviews

Quotations of statements	Subthemes	Themes
<p>“I don’t understand, Miss. This is the first time I’ve heard of the CLTS program.” (IT 1)</p> <p>“Yes, [as I know] sanitation is about the drains. Yes, for all the residents, from the toilets, everything usually flows into the drains.” (IT 4)</p>	Knowledge about CLTS program	CLTS literacy
<p>“[...] Some posters saying ‘No defecating here’ and ‘No open defecation’ have been put here, but the majority [of residents] here are fishermen and vendors. When you tell fishermen something, you have to be very detailed and logical, otherwise they won’t understand at all.” (IT 3)</p> <p>“I don’t know, there hasn’t been any socialization about it, Miss.” (IT 2)</p>	Access to information about CLTS program	
<p>“Yes, there are health cadres who often provide information about not defecating in the open, Miss. The head of neighborhood unit and community unit also give out that information also.” (IT 1)</p> <p>“Yes, there are [socialization] from relevant department through the public health center who usually call the head of neighborhood unit. The village residents and cadres are also often socialized together, including cross-sectoral socialization from the public health center.” (IT 3)</p>	Role of cadres	Support from cadres and health workers
<p>“There is assistance includes toilets and septic tanks too, Miss. Some of the residents here can’t afford it, Miss, so, yeah.” (IT 1)</p> <p>“[...] So, the government should always monitor our residents so that they can properly manage their fecal waste.” (IT 4)</p>	Role of health workers	

“Well, if we’re talking about defecation, we need to maintain good hygiene, Miss. There are diseases associated with it, like malaria and diarrhea, and it can lead to all sorts of illnesses from those germs.” (IT 3)	Community awareness	
“[...] We often remind our fellow residents about solutions like this, so that our own waste doesn’t bother others. Because there are some drains that can sometimes have a really unpleasant smell.” (IT 4)		Community awareness and participation
“Actively supporting participation if it’s truly for the betterment, especially for cleanliness.” (IT 2)		
“Well, people here generally care about sanitation, but the thing is, in our area, many people still use pit latrine. So, you know, when there are many people, like relatives or children, and they really need to go, they often go to the boat (defecate in the river) because they can’t stand waiting in line for the public toilet.” (IT 3)	Community participation	
“Yes, there are some public toilets. People who don’t have their own toilets go there to relieve themselves, Miss. The public toilet is near the river.” (IT 1)	Facilities	
“There’s a public toilet where everyone goes to wash and relieve themselves” (IT 3)		Facilities and infrastructure
“I need help with toilets and septic tanks too, Miss, since we’re here can’t afford it, Miss, so, yeah” (IT 1)		
“[...] and most of us are from low to middle-income backgrounds, so if we want to build our own toilets, many people don’t have the money, Miss. It’s difficult to have 100% toilet coverage [in this village].” (IT 3)	Infrastructure	

Interviews with key informant, stakeholders involved in the CLTS program, revealed four critical themes: CLTS literacy, support from cadres and health workers, community awareness and participation, as well as facilities and infrastructure. A summary of these findings from key informants is presented in Table 2.

Table 2. Quotations from Key Informant Interviews

Themes	Quotations	Subjects
CLTS literacy	“The goal is to have a clean and healthy life.”	IU 1
	“Well, for CLTS, which stands for Community-Led Total Sanitation, we focus on the 5 pillars. Unfortunately, for first pillar, many people here still don’t have latrines. So we’re still working on how to achieve 100% elimination of open defecation for first pillar.”	IU 2
Support from cadres and health workers	“Yes, we socialize it by informing them that toilets need septic tanks.”	IU 1
	“Yes, from the government. So, those who don’t have toilets will be provided with toilets, and those who don’t have septic tanks will be provided with septic tanks.”	IU 1
	“Yes, at the public health center. For the public health center itself, we’ve already had a triggering meeting. Then there’s also the Health Department, we have a kind of joint effort with the Public Works Department on how their program can help reduce the practice of open defecation”	IU 2

Community awareness and participation	"As far as I know, no one has refused to participate in the CLTS program, IU 2 Miss."
Facilities and infrastructure	"[...] due to their limited economic resources. They are unsure about how IU 2 to stop the practice of open defecation."

Based on observations, it was found that several houses in this area do not have private toilets and some still use pit latrines. Residents without private toilets choose to use public toilets located far from their houses, while those using pit latrines contribute to sewer pollution. This pollution results in poorly maintained and unclean sewers, causing unpleasant odors that disturb the surrounding environment.

In terms of sanitation management, active community participation is still minimal. Residents' involvement in maintaining environmental cleanliness and collective sanitation management is not optimal, causing this problem to persist without an effective solution.

Based on interviews and observations, four themes emerged: CLTS literacy, support from cadres and health workers, community awareness and participation, as well as facilities and infrastructure. These four themes are indicators to prevent low ODF in Panjunan Village that can be identified and validated from interview data sources.

DISCUSSION

This qualitative study aimed to investigate the underlying causes of the high prevalence of open defecation in the coastal area of Panjunan Village, Cirebon City. The analysis conducted in this study revealed several key indicators that significantly influence the implementation of the first pillar of the CLTS program in coastal areas. These indicators require in-depth discussion to understand the challenges and potential solutions that can be implemented.

CLTS Literacy

The research found that community understanding of the principles and objectives of the first pillar of CLTS program is a fundamental foundation for the success of this program (Yohanes et al., 2024). Sufficient understanding enables the community to realize the importance of adopting clean and

healthy living behaviors, especially behaviors leading to ODF.

The research results showed that the knowledge of residents and access to information about CLTS in Panjunan Village, Cirebon City was still low. This research aligns with the findings of Ananda, et al stated that low knowledge of ODF and the benefits of sanitation often make it difficult for people to adopt healthy living habits, even though supporting programs and facilities are available (Ananda et al., 2023). Many people do not fully understand the impact of poor sanitation, with health risks such as diarrhea, stunting, and other environment-related diseases (Cronin et al., 2017).

This research is in line with the findings of research by Elvira Eldysta, et al., which stated that low knowledge of CLTS can lead to environmental diseases such as diarrhea (Eldysta et al., 2022). The community can understand the importance of total sanitation as part of daily life by increasing CLTS literacy. Good literacy will be a strong foundation for sustainable behavioral change, so that the goals of CLTS can be achieved maximally (Akintunde, 2017).

Support from Cadres and Health Workers

Health cadres play an essential role as the main drivers at the community level in the implementation of CLTS first pillar (Juliana et al., 2022). Cadres not only serve as educators who convey information and education but also act as a link between the community and external parties, such as government, non-governmental organizations, or other supporting organizations (Fadlillah et al., 2021). Optimizing the role of cadres is the key to the success of the program, as they understand local needs and have social closeness that can build community trust (Rahman & Bhuiyan, 2019).

In an effort to support the success of

CLTS first pillar, health cadres and health workers have shown their active role through community triggering activities. Triggering is done as an initial step to build awareness of the importance of adequate sanitation, especially in achieving ODF (Herniwanti et al., 2022).

Through triggering, the community is introduced to the negative impacts of inadequate sanitation, such as the risk of environment-based diseases and water pollution. Cadres and health workers use approaches that encourage the community to feel the impact emotionally and intellectually, thus triggering the desire to change. This step is an essential foundation for building initial community motivation.

Health workers play a very important role. They are not only expected to provide curative medical services but are also actively involved in promotive and preventive efforts (Jeet et al., 2017). By building community awareness of the importance of adequate sanitation, health workers can help create an environment that supports behavioral changes towards a clean and healthy life.

Community Participation

The research results showed that community participation in the first pillar of CLTS program is actually quite active and enthusiastic. The community is generally involved in various activities, such as attending socialization, and helping to implement programs at the local level. This reflects that the community has an interest in contributing to improving the quality of the environment and the health of their community.

However, there is a significant challenge in terms of community awareness. Low awareness is often seen in the community's tendency to only carry out program activities, not from personal understanding or awareness of the benefits of adequate sanitation. For example, people may be involved in building sanitation facilities, but do not practice ODF because they do not fully understand the health risks involved.

Inculcating awareness as part of every stage of the program is very important. Hopefully, community participation will not only be a formality but done sincerely (Ren & Zhao, 2023). The relationship between active participation and awareness is very important

to achieve the goals of CLTS first pillar comprehensively (Julisma et al., 2024).

Facilities and Infrastructure

The Panjunan Village area has had facilities such as public toilets that can be accessed by the community to support the implementation of the first pillar of CLTS program (Munthe & Sembiring, 2024). The existence of these facilities indicates an effort to provide alternative sanitation facilities for the community, especially in areas with limited access to private toilets (Syafruddin et al., 2024). These facilities are a positive initial step towards changing community behavior, especially in achieving ODF. The economic conditions of the community in this area are still considered inadequate. Many families face economic constraints, making it difficult to build or have private toilets at home (Maran & Takesan, 2022).

The existence of sanitation facilities such as public toilets is a significant initial step, but without adequate economic infrastructure, it hinders the realization of an ODF village. Collaboration between facility providers, the community, and other supporting parties is very important to overcome this gap (Entianopa et al., 2017).

CONCLUSION

Insufficient CLTS literacy, inadequate cadre support, and low community engagement are obstructing the implementation of the first pillar of the CLTS program in Panjunan Village, Cirebon City. Additionally, limited access to adequate sanitation facilities is preventing the achievement of the 100% ODF target. Therefore, collaborative efforts between the government, cadres, and the community are needed to improve education, provide infrastructure, and raise awareness of clean and healthy living behaviors.

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