

Analysis of Perceptions and the Role of Local Leadership in Encouraging ODF Behavior

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ABSTRACT

Local leadership and community perceptions of the benefits of proper sanitation and the negative impacts of open defecation behavior can be a trigger for behavior change. Examining the analysis of perceptions and the role of local leadership in encouraging ODF behavior. A cross-sectional study was conducted in Mei 2023 on 224 people living in Dirwemna District, Yahukimo Regency. A simple random sampling was conducted to determine the respondent. Data was collected use a questionnaire and analyzed using regression. Research findings show that partially the perception of ODF ($p=0.000$) and local leadership ($p=0.000$) affect the open defecation free behaviour. In addition, simultaneously both are also significant ($p=0.000$). The community are encouraged to actively participate in sanitation education programs organized by local leaders. It is important for society to develop a positive perception and a deep understanding of the dangers of open defecation.

Keywords: local leadership, open defecation free, perception

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BACKGROUND

The study by Abebe & Tucho (2020) highlighted the importance of community perceptions of sanitation, especially in the context of stopping open defecation practices. Community perceptions of the benefits of proper sanitation and the negative impacts of open defecation behavior can be a trigger for behavior change. In the analysis of Dirwemna District, it is important to understand how people there perceive sanitation, whether they are aware of its benefits, and what might be the barriers to changing behavior. In addition, the role of local leadership in encouraging ODF behavior is critical. The study by Exum et al. (2020) emphasized the importance of community leadership in driving sanitation behavior change. Village heads, traditional leaders, or local community leaders can play a significant role in motivating communities to adopt improved sanitation behaviors. In the analysis of Dirwemna District, it is important to understand the role of local leadership in motivating and coordinating efforts towards ODF.

Based on Riskesdas data in 2022, the prevalence of open defecation free (ODF) behavior among communities in Papua Province was 55.9%. This figure indicates that out of every 100 people in Papua Province, 55.9 people do not defecate in latrines. The prevalence of ODF behavior in the community in Papua Province is highest in districts/cities in mountainous areas, at 85.1%. Meanwhile, the lowest prevalence was found in districts/cities in coastal areas, which amounted to 26.3% (Ministry of Health Indonesia, 2023). Based on data from the Yahukimo District Health Office, the prevalence of ODF (open defecation free) behavior in the community in Dirwemna District in 2023 was 60%. This figure shows that out of every 100 people in Dirwemna District, 60 people still practice open defecation. The prevalence of ODF behavior in the community in Dirwemna District is highest in the age group of 15-24 years, which is 75%. Meanwhile, the lowest prevalence was in the 55-64 age group, which amounted to 45%. ODF behavior is unhealthy and can cause various diseases, including diarrhea, cholera, and typhoid.

The study by Abebe & Tucho (2020) revealed that in the Ethiopian context, community perceptions of sanitation are influenced by knowledge, attitudes and practices. The important role of local leadership such as village heads or village sanitation committees in providing education and encouraging behavior change has been shown to be effective. In the analysis of Dirwemna District, Yahukimo District, community knowledge, attitudes and practices related to sanitation can be the focus to understand their perceptions of sanitation. In addition, a study by Jati et al. (2023) highlighted the important role of local institutions in supporting ODF programs. In some cases, the success of achieving ODF behavior is related to the support and cooperation of institutions such as local government, NGOs, and community organizations. In the context of Dirwemna District, local leadership may be able to coordinate cooperation between these institutions to achieve ODF.

According to a study conducted by Ntaro et al. (2022) community perception of the importance of good sanitation can be a determining factor in achieving ODF behavior. This study shows that awareness and positive perceptions of good sanitation can encourage people to change their behavior. In addition, the role of local leadership in initiating and promoting ODF behavior at the community level is very important. The study by Delaire et al. (2022) highlights how local leadership, including village leaders and district heads, can play a key role in driving sanitation initiatives. In the context of Dirwemna District, the role of local leaders in motivating communities to adopt ODF behaviors and supporting existing sanitation programs was a key factor in the success of this effort.

Limited resources and geographical challenges in areas such as Yahukimo District add complexity to achieving ODF behavior. However, this research can provide a deeper understanding of how community perceptions and the role of local leadership can interact in

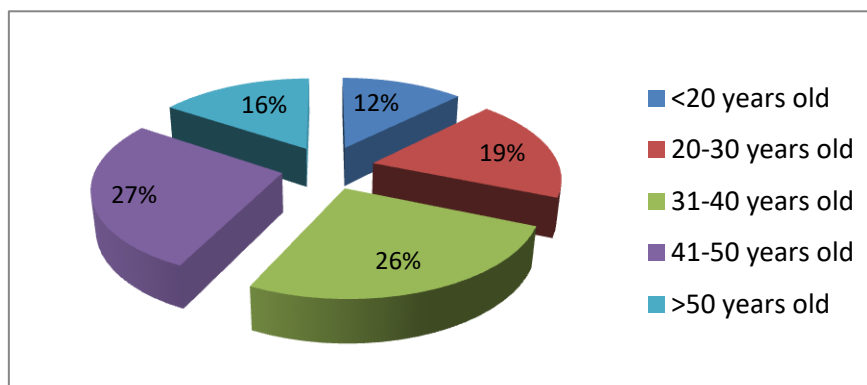
achieving this goal. By understanding these factors, sanitation programs can be adjusted and improved to achieve a greater level of success in the effort to create a cleaner, healthier environment free from open defecation practices in Dirwemna District. Based on this, the researcher is interested in examining the analysis of perceptions and the role of local leadership in encouraging ODF behavior in communities in Dirwemna District, Yahukimo Regency.

METHODS

A cross-sectional study was conducted in Mei 2023 on 224 people living in Dirwemna District, Yahukimo Regency. This approach aims to study the dynamics of the correlation between risk factors and effects by means of an observation approach or data collection at one time (point time approach), meaning that each research subject is only observed once, and measurements are made of the subject's character status or variables at that time. Population number in this research are 512 peoples. A simple random sampling was carried out to determine the research sample. We got 224 peoples for sampels. The independent variables in this study are perception and local leadership. Meanwhile, the dependent variable is the open defecation free behaviour. Data for each variable was collected using a questionnaire that had passed validity and reliability tests. Based on CVI analysis which shows results > 0.7 , this research instrument is declared valid and reliable. This research will analyze the influence of the perception and local leadership on the the open defecation free behaviour in Dirwemna District, Yahukimo Regency. Data analysis was conducted using regression.

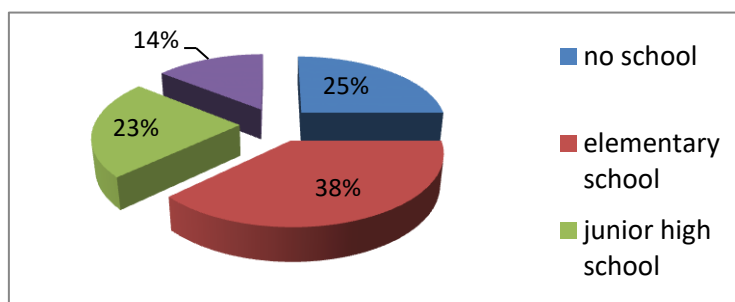
RESULTS

The results of this research are presented in the form of figures and tables containing respondent characteristics, perceptions, local leadership, and open defecation free behaviour. Figure 1. Characteristics of respondents according to age.



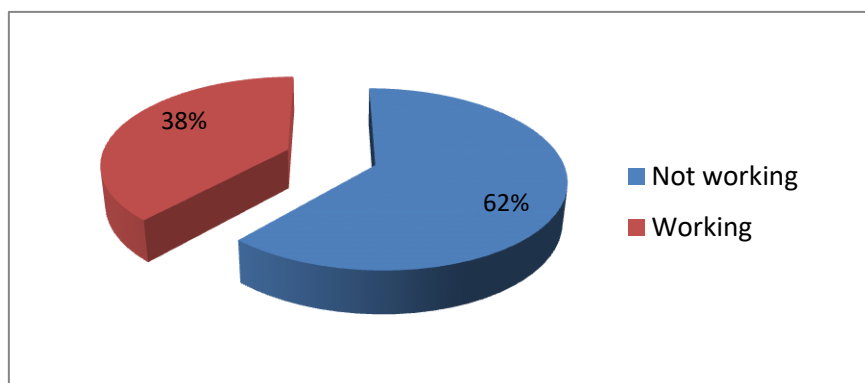
Based on Figure 1, it was found that almost half of the respondents were aged 41-50 years as many as 61 respondents (27%).

Figure 2. Characteristics of respondents according to educational status.



Based on Figure 2, it was found that almost half of the respondents had an educational history as elementary school graduates as many as 85 respondents (38%).

Figure 3. Characteristics of respondents according to educational status.



Based on Figure 3, it was found that most of the respondents did not have a job as many as 138 respondents (62%).

Table 1. Respondents' perception of open defecation free

Perception of ODF	Frequency	Percent (%)
Good	29	12.9
Sufficient	106	47.3
Lack	89	39.7
Total	224	100.0

Based on table 1 above, it was found that almost half of the respondents had sufficient category perceptions as many as 106 respondents (47.3%).

Table 2. Respondents' local leadership characteristics.

Local leadership	Frequency	Percent (%)
Good	29	12.9
Sufficient	107	47.8
Lack	88	39.3
Total	224	100.0

Based on table 2 above, it shows that almost half of the respondents have sufficient local leadership roles as many as 107 respondents (47.8%).

Table 3. Respondents' open defecation free behaviour.

ODF Behaviour	Frequency	Percent (%)
Good	27	12.1
Sufficient	106	47.3
Lack	91	40.6
Total	224	100.0

Based on table 3 above, it is known that the majority of respondents have sufficient open defecation free behaviour as many as 106 respondents (47.3%).

Table 4. Regression analysis results.

No	Variabel	Sig	B	R ²	Sig
1	(Constant)	0.822	0.063		
2	Perception of ODF	0.000	0.485	0.966	0.000
3	Local leadership	0.000	0.506		

Based on statistical analysis, Table 4 shows that partially the perception of ODF (p=0.000) and local leadership (p=0.000) affect the open defecation free behaviour of the people of Dirwemna District, Yahukimo Regency. In addition, simultaneously both are also significant in determining the open defecation free behaviour of the people of Dirwemna

District, Yahukimo Regency. The R-Square value also shows that 96.6% of the open defecation free behaviour variable could be predicted by the perception of ODF and local leadership.

DISCUSSION

Based on the results of Linear Regression analysis, it shows that the p-value is 0.000 <0.05 then H1 is accepted so it is concluded that partially there is an influence of perception on ODF behaviour in the community in Dirwemna District, Yahukimo Regency. Community perceptions about hygiene and sanitation have a significant influence on open defecation free (ODF) behaviour in Dirwemna District, Yahukimo Regency. According to a study conducted by Trimmer et al. (2022), a positive perception of the importance of sanitation and environmental health is a key factor in encouraging ODF behaviour. This study showed that when people understand the health risks associated with open defecation practices, they are more motivated to adopt more hygienic habits.

Educational interventions that raise community awareness about the dangers of open defecation and the benefits of adequate sanitation facilities can change perceptions and behaviour. These interventions often involve counselling by health workers, distribution of educational materials, as well as demonstrations of the correct use of sanitation facilities. Results show that in areas where communities have good access to sanitation information and education, ODF rates are higher (Kouassi, Andrianisa, Traoré, Sossou, Momo Nguematio, et al., 2023). In addition, perceptions about the availability and accessibility of sanitation facilities also have a major influence on ODF behaviour. When people feel that proper sanitation facilities are available and easily accessible, they are more likely to use them. However, if they feel that the facilities are insufficient or difficult to reach, open defecation behaviour may still take place. Therefore, it is important to ensure that sanitation programmes focus not only on changing perceptions but also on improving infrastructure (Adlakha et al., 2022).

Furthermore, social perceptions and cultural norms also play an important role in ODF behaviour. In some communities, open defecation practices may be considered a socially acceptable habit, especially in areas that have not been fully exposed to modern sanitation education. Changing this perception requires a culturally sensitive approach and involving community leaders in sanitation campaigns. Thus, social norms can be reformed to support ODF behaviour (Malan et al., 2020). Programmes supported by government policies, such as the provision of free or subsidised sanitation facilities, as well as ongoing education campaigns, can reinforce positive perceptions of sanitation and encourage the adoption of ODF behaviour. The active participation of these various stakeholders ensures that efforts to improve sanitation and eliminate open defecation practices are sustainable and effective (Muchsin & Saliro, 2020).

Community perceptions play an important role in influencing ODF (open defecation free) behaviour in Dirwemna District, Yahukimo Regency. Positive perceptions of the importance of sanitation and environmental health have been shown to encourage people to adopt open defecation behaviour. Health education and interventions that raise awareness about the health risks of open defecation and the benefits of adequate sanitation facilities can change people's perceptions and behaviour. In addition, the availability and accessibility of good sanitation facilities is also critical to ensure sustainable behaviour change. Changing community perceptions of open defecation behaviour requires a culturally sensitive approach and involving community leaders in sanitation campaigns. Government policy support and active participation from various stakeholders can reinforce positive perceptions of sanitation and encourage the adoption of ODF behaviours. With a comprehensive and integrative strategy, ODF behaviour can be minimised, which will ultimately improve the overall health

and well-being of the community.

Based on the results of Linear Regression analysis shows that the p-value of 0.000 <0.05 then H_0 is rejected and H_1 is accepted so it is concluded that partially there is an influence of the role of local leadership on ODF behaviour in the community in Dirwemna District, Yahukimo Regency (Ellina et al., 2022). The role of local leadership in changing open defecation (ODF) behaviour in communities in Dirwemna District, Yahukimo Regency, is crucial. Effective local leadership is able to influence and direct community behaviour towards better sanitation practices. Local leaders who are committed to environmental health and hygiene can be strong agents of change in campaigning for ODF behaviour. They have the power to mobilise resources, support sanitation programmes, and encourage active community participation (Nnindini & Dankwah, 2023).

Good local leadership can build trust and authority among communities. Respected leaders can use their influence to educate communities about the importance of sanitation and the negative impacts of open defecation. In addition, they can implement local policies that support the construction of sanitation facilities and ensure that resources are allocated appropriately to support ODF programmes (Tarlani et al., 2021). Inclusive and participatory leadership, which involves the community in every stage of the programme, from planning to evaluation, can increase community ownership and responsibility for the programme. Local leaders who facilitate open and transparent dialogue on sanitation issues can help overcome the cultural and social barriers that often hinder behaviour change (Adeoti et al., 2021).

Furthermore, the training and capacity provided to local leaders is critical to the success of ODF programmes. By providing appropriate training, local leaders can better understand sanitation issues and the best methods to address open defecation. They can also be equipped with effective communication skills to deliver health messages in a way that is easily understood by the community (Dewoolkar, 2022). The role of local leadership is significant in changing open defecation behaviour in communities in Dirwemna District, Yahukimo Regency. Effective local leaders serve not only as change agents but also as key drivers in mobilising resources and supporting sanitation programmes. The research shows that committed and respected local leaders can build trust and authority, which is critical in educating communities about the importance of sanitation and the negative impacts of open defecation behaviour.

Inclusive and participatory leadership, which involves the community in every stage of the sanitation programme, has been shown to increase community ownership and responsibility for the programme. Training and capacity building of local leaders is also a key factor in the success of ODF programmes, providing them with the necessary skills and knowledge to effectively address sanitation issues. With the right support and active involvement of local leaders, changes in community behaviour towards better sanitation practices can be achieved, ultimately improving the overall health and well-being of the community (Kouassi, Andrianisa, Traoré, Sossou, Nguematio, et al., 2023).

Based on the results of Multiple Linear Regression analysis, it shows that with a p-value of 0.000 <0.05, H_1 is accepted so it is concluded that simultaneously there is an influence of perceptions and the role of local leadership on ODF behaviour in the community in Dirwemna District, Yahukimo Regency with an influence of 96.6%. Community perceptions of sanitation are strongly influenced by factors such as education, exposure to information, and personal experience. This study found that people who have better access to sanitation information and education tend to have a more positive perception of the importance of environmental hygiene and health (Ambarika, 2023). Local leaders who are proactive in promoting ODF behaviours can create significant changes in communities. This study highlighted the importance of local leaders in mobilising community resources, organising sanitation activities, and providing hands-on examples of good hygiene practices.

Communities with active and committed local leaders tended to have higher ODF rates compared to communities without strong leadership support (Joshi, 2023).

Local leaders who are able to integrate local wisdom with modern sanitation practices can be more effective in changing open defecation behaviour. Suharti et al. suggested that sanitation programmes should consider cultural aspects and involve traditional leaders in every stage of implementation (Elhanur et al., 2021). Community participation in the planning, implementation and evaluation of sanitation programmes increased their sense of ownership and responsibility for the programme. Local leaders who encourage community participation and provide space for communities to be actively involved in sanitation decision-making can create an environment that is more conducive to behaviour change (Arindayu et al., 2021). Furthermore, participatory local leaders, who involve the community in every stage of the sanitation programme, can increase community ownership and responsibility for the programme. Leadership that involves open and transparent dialogue on sanitation issues can help overcome cultural and social barriers that often prevent behaviour change. Local leaders who support sanitation education and community engagement can create an environment conducive to behaviour change towards ODF (Mahendra et al., 2021).

By providing appropriate training, local leaders can better understand sanitation issues and the best methods to address open defecation. They can also be equipped with effective communication skills to deliver health messages in a way that is easily understood by the community. This training ensures that local leaders are not only knowledgeable but also able to influence the community in a positive way (Siwiendrayanti & Maulidah, 2022). According to the researchers, community perceptions and the role of local leadership are crucial factors in changing open defecation behaviour in Dirwemna District, Yahukimo Regency. Positive perceptions of the importance of sanitation and environmental health, fuelled by effective health education and campaigns, can increase community awareness of the dangers of open defecation and encourage the adoption of better sanitation practices. Appropriate education, accompanied by the delivery of clear and relevant information, can significantly change community perceptions.

The role of local leadership is also very important in achieving ODF behavior. Respected and committed local leaders can mobilize resources, support the development of sanitation infrastructure, and encourage active community participation. Inclusive and participatory leadership, which involves the community in every stage of the sanitation program, and pays attention to local wisdom and cultural norms, has proven to be more effective in creating sustainable behavior change. Thus, a combination of changing perceptions through education and the active role of local leadership is an effective strategy to overcome open defecation practices and improve overall community health.

CONCLUSION

Based on the research results, it can be concluded that 1) There is an influence on perceptions of ODF behavior in the community in Dirwemna District, Yahukimo Regency; 2) There is an influence of the role of local leadership on ODF behavior in the community in Dirwemna District, Yahukimo Regency; 3) There is an influence of perceptions and the role of local leadership on ODF behavior in the community in Dirwemna District, Yahukimo Regency.

It is hoped that the community in Dirwemna District, Yahukimo Regency, will actively participate in sanitation education programs organized by local leaders and health institutions. It is important for society to develop a positive perception about the importance of environmental cleanliness and health through a deep understanding of the dangers of open defecation. In addition, researchers encourage local leaders to continue to play an active role in supporting and promoting ODF practices by involving all levels of society, as well as

considering local wisdom and cultural norms in every approach taken. With strong collaboration between communities and local leaders, sustainable sanitation behavior changes can be achieved, thereby improving the quality of health and collective well-being.

It is hoped that educational institutions can use the results of this research as learning input regarding the influence of perceptions and the role of local leadership on ODF behavior in the community in Dirwemna District, Yahukimo Regency and can be developed again for further research to make it more useful for readers and researchers. For future researchers, it is necessary to deepen and add more specific research regarding the factors that influence the perception of ODF in the community in Dirwemna District, Yahukimo Regency.

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