EDUCATION AND ERADICATION OF INFECTIOUS DISEASES THROUGH HYGIENE CAMPAIGNS IN VILLAGES

Ninik Churniawati[1], Wahidin[2], Cut Susan Octiva[3], Brevmana Anugrah Primulyanto[4], Liza Rastiti[5]
[1)] ITB Yadika Pasuruan
[2)] Universitas 17 Agustus 1945 Jakarta
[3)] Universitas Amie Hamzah Medan
[4,5)] STIKES Rajekwesi Bojonegoro
e-mail: ninikchurniawati@itbyadika.ac.id[1], wahidin@uta45jakarta.ac.id[2], cutsusan875@gmail.com[3], gulik86shirt@gmail.com[4], lizarastiti@gmail.com[5]

Abstrak
Kegiatan Pengabdian Kepada Masyarakat (PKM) ini bertujuan untuk meningkatkan kesadaran dan perilaku sehat masyarakat Desa terkait praktik higiene sebagai upaya pencegahan penyakit menular. Kampanye dilakukan secara daring melalui aplikasi Zoom, melibatkan pemerintah desa, tenaga kesehatan, dan tokoh masyarakat. Metode pelaksanaan mencakup survei awal, penyusunan materi edukasi, pelaksanaan sesi edukasi daring, serta monitoring dan evaluasi perubahan pengetahuan dan perilaku masyarakat. Hasil survei awal menunjukkan bahwa pengetahuan masyarakat mengenai pentingnya higiene masih rendah, dengan hanya 40% yang menerapkan cuci tangan dengan sabun. Setelah kampanye, terjadi peningkatan signifikan dalam pengetahuan (85%) dan perilaku sehat (70% menerapkan cuci tangan dengan sabun). Meskipun hasil kampanye menunjukkan keberhasilan dalam meningkatkan kesadaran dan perilaku higiene, tantangan terkait keterbatasan akses air bersih dan fasilitas sanitasi tetap menjadi hambatan. Kesimpulannya, kampanye ini efektif dalam meningkatkan kesadaran dan perilaku sehat masyarakat Desa, dan memberikan kontribusi penting dalam pengembangan program PKM berbasis teknologi di wilayah pedesaan. Temuan ini diharapkan dapat menjadi model untuk kampanye kesehatan serupa di masa depan.
Kata kunci: Penyakit Menular, Higiene, Kampanye Kesehatan, Edukasi Daring

Abstract
This Community Service (PKM) activity aims to increase awareness and healthy behavior of the village community related to hygiene practices as an effort to prevent infectious diseases. The campaign was carried out online through the Zoom application, involving village governments, health workers, and community leaders. The implementation method includes initial surveys, preparation of educational materials, implementation of online education sessions, as well as monitoring and evaluation of changes in knowledge and community behavior. Initial survey results show that public knowledge of the importance of hygiene is still low, with only 40% implementing hand washing with soap. After the campaign, there was a significant increase in knowledge (85%) and healthy behaviours (70% applied hand washing with soap). Although the results of the campaign show success in increasing hygiene awareness and behavior, challenges related to limited access to clean water and sanitation facilities remain obstacles. In conclusion, this campaign is effective in increasing awareness and healthy behavior of village communities, and makes an important contribution to the development of technology-based PKM programs in rural areas. These findings are expected to serve as a model for similar health campaigns in the future.
Keywords: Infectious Diseases, Hygiene, Health Campaigns, Online Education

INTRODUCTION

Infectious diseases are still a serious threat to public health, especially in rural areas in Indonesia which often have limited access to health services and education about good hygiene practices (Lestyoningsih & Lindawati, 2021). Infectious diseases are a significant public health threat in rural Indonesia, exacerbated by limited access to health services and inadequate hygiene education. Research shows that socioeconomic factors, cultural beliefs, and geographical isolation hinder healthcare accessibility in these areas, leading to disparities in health outcomes (Lelyana, 2024). For example, the prevalence of open defecation is associated with increased rates of diarrhea, a leading cause of death among children, highlighting the urgent need for better sanitation practices (Mutiara et

al., 2024). In addition, COVID-19 vaccination rates revealed a gap between rural (65.3%) and urban (70.3%) populations, driven by low perceptions of vulnerability and barriers to access (Fitria et al., 2024). Additionally, menstrual hygiene management practices in remote areas are often inadequate, increasing the risk of infection (Assa et al., 2024). Addressing these challenges through community engagement, education, and improving health delivery systems is essential to improve public health in rural Indonesia (Assa et al., 2024; Lelyana, 2024).

Diseases such as diarrhoea, dengue fever, and upper respiratory tract infections often spread rapidly in villages due to a lack of awareness of the importance of adequate hygiene and sanitation. Research shows that inadequate sanitation conditions significantly contribute to the transmission of various diseases, with research showing that improved water, sanitation, and hygiene (WASH) can reduce the incidence of diarrhea by up to 65% (Najnin et al., 2024). In rural areas, many individuals do not have proper knowledge and education about hygiene, which hinders effective sanitation practices (Lakshmi & Paul, 2024). For example, a study in Jatisari Village found a significant relationship between knowledge, attitudes, and sanitation conditions, suggesting that increased awareness can reduce disease transmission (Herawati & Wijayanti, 2024). In addition, washing hands with soap is essential to prevent diseases such as diarrhea and upper respiratory tract infections, but many communities show poor hand hygiene practices due to inadequate knowledge and resources (Indriani et al., 2023). Thus, improved education and access to sanitation facilities are essential to improve public health in this vulnerable population (Eliud et al., 2022).

Based on data from the Ministry of Health of the Republic of Indonesia, the incidence of infectious diseases in rural areas is still quite high, indicating the need for effective interventions in the form of health education and hygiene campaigns. Research shows that personal hygiene practices, such as handwashing, significantly affect health outcomes, with research showing an increase in knowledge and practices among school children after targeted health education interventions (Yamin et al., 2024). Additionally, barriers to access to healthcare, including socioeconomic factors and cultural beliefs, exacerbate health disparities in these communities (Lelyana, 2024). Cultural factors and social norms also play an important role in the transmission of infectious diseases, suggesting that interventions must be culturally sensitive to be effective (Firdaus et al., 2023). Additionally, leveraging community engagement and technology can improve the delivery of health and hygiene education campaigns, addressing the diverse challenges faced by rural populations (Putri et al., 2024). As such, a comprehensive approach that combines education, community engagement, and cultural sensitivity is essential to reduce the burden of infectious diseases in rural Indonesia.

Various studies have been conducted to understand and overcome the spread of infectious diseases in rural areas. For example, a study by Angelina & Drew (2024) shows that increasing public knowledge through health campaigns can significantly reduce the incidence of infectious diseases in rural communities. Another study by Hadi et al. (2023) & Mufidah et al. (2023) found that a participatory approach in health campaigns can improve the effectiveness of education and encourage better hygiene behavior change among rural communities. However, although many PKM programs have been focused on health education, there are still shortcomings in an integrated and sustainable approach that actively involves all elements of rural communities.

This PKM article offers a more holistic approach to educating rural communities about hygiene, which not only involves providing information, but also building collective awareness and empowering communities to actively maintain the cleanliness of their environment. The novelty of this article lies in an integrative approach that involves village governments, health workers, and community leaders in the implementation of sustainable hygiene campaigns. In addition, this campaign also prioritizes the use of digital media as a tool to help disseminate information, which is still rarely applied in the rural context in Indonesia. The importance of this PKM article lies not only in efforts to eradicate infectious diseases, but also in improving the quality of life of village communities through healthier behavior changes. Thus, the purpose of this article is to evaluate the effectiveness of hygiene campaigns carried out online through the Zoom application in increasing awareness and healthy behavior of people in the village.

METHOD

The implementation of this Community Service (PKM) activity is carried out online through the Zoom application, involving various stakeholders, such as the village government, health workers,

community leaders, and all levels of village society. The method of implementing this activity consists of several stages designed to achieve the goals of PKM activities, namely increasing public awareness and healthy behavior related to hygiene, as well as documenting the results of activities for writing PKM articles.

Preparation and Planning

1. Problem Identification

Tim PKM melakukan survei awal secara daring untuk mengidentifikasi masalah utama terkait praktik higiene di Desa. Survei ini dilakukan melalui kuesioner online yang dikirimkan kepada kepala desa, perangkat desa, dan beberapa perwakilan masyarakat.

2. Coordination with Stakeholders

The PKM team held an online meeting with the village government, health workers, and community leaders to develop a hygiene campaign plan that is in accordance with the conditions and needs of the local community.

3. Preparation of Educational Materials

The educational material is prepared based on the results of the survey and input from stakeholders. This material includes basic information about infectious diseases, the importance of hygiene, and preventive measures that can be taken by village communities.

Implementation of the Hygiene Campaign

1. Initial Socialization

The PKM team held an initial socialization session via Zoom, which was attended by community representatives and stakeholders. This socialization aims to introduce hygiene campaigns and explain the importance of active participation from all communities.

2. Online Education Activities

Educational activities were carried out in several Zoom sessions which were divided into several topics, such as "Introduction to Infectious Diseases," "Daily Hygiene Practices," and "Utilization of Local Resources to Support Hygiene." Each session is filled by experienced health workers, with an adjusted implementation time so that it can be followed by the village community.

3. Dissemination of Educational Materials

In addition to Zoom, educational materials are also distributed through social media, village WhatsApp groups, and digital posters that can be accessed and shared by village communities.

Monitoring and Evaluation

1. Initial and Final Measurements

Before and after the campaign, the level of knowledge and changes in community behavior related to hygiene was measured through an online questionnaire. This measurement aims to evaluate the effectiveness of the campaigns that have been implemented.

2. Focus Group Discussion (FGD)

After the campaign, the PKM Team held an online FGD with community representatives to get feedback on the implementation of the activity, as well as to find out the extent to which the community felt helped by this campaign.

3. Data Analysis

The results of the questionnaire and FGD were analyzed to identify the impact of hygiene campaigns on public awareness and behavior. This analysis will be used as the main material in writing PKM articles.

Article Preparation and Publication

1. Activity Documentation

During the activity, the PKM Team documented the entire process through field notes, Zoom session recordings, and the results of questionnaires and FGDs. This documentation is used as the main source of data in writing PKM articles.

2. Article Writing

PKM articles are compiled based on data that has been analyzed, focusing on the effectiveness of hygiene campaigns and changes in community behavior.

3. Submission of Articles to Journals

After the article is completed, the article will be submitted to the Sinta 5 PKM journal for publication, with the hope of contributing to the development of a more effective PKM program in the future.

RESULTS AND DISCUSSION

Initial Survey Results

An initial survey conducted to identify the main problems related to hygiene practices in various villages showed that 65% of respondents had limited knowledge about the importance of hygiene practices in preventing infectious diseases. In addition, only 40% of respondents routinely implement the practice of washing hands with soap, while 30% still rely on water without soap. Another problem identified was the lack of adequate sanitation facilities in most households in the village.

Participation in Online Education Activities

Educational activities carried out through the Zoom application were attended by 75% of the total heads of families in various villages in Indonesia. This participation is considered quite good considering the limited access to technology in several village areas. In each educational session, the average attendance was 50 participants, with an active participation rate in the form of questions and answers and discussions reaching 80%. This shows a high interest from the public in acquiring knowledge about hygiene and prevention of infectious diseases.

Changes in Knowledge and Behavior

The results of the measurement before and after the campaign showed a significant increase in the level of public knowledge. Before the campaign, only 30% of the participants were able to name more than two preventable infectious diseases with hygienic practices. After the campaign, this figure increased to 85%. In addition, the implementation of hand washing practices with soap increased from 40% to 70%, and 60% of participants reported having started improving sanitation facilities in their homes.

Results of Focus Group Discussions (FGD)

The FGD held after the campaign provided additional insight into the public's perception of the activities carried out. Most of the FGD participants stated that they felt more aware of the importance of maintaining cleanliness, especially during the pandemic. However, they also revealed challenges in implementing hygiene practices consistently, especially due to limited access to clean water and adequate sanitation facilities.

Impact and Implications Analysis

The hygiene campaign, which was carried out online via Zoom, succeeded in achieving the main goal, which is to increase public awareness and healthy behavior in various villages in Indonesia. Increased knowledge and recorded behavior changes show that online education methods can be effective even in rural environments with limited access to technology (Gong & Li, 2024; Hans, 2024). This success is in line with the findings of previous research which stated that increased knowledge can affect significant behavior change in efforts to prevent infectious diseases.

For example, a study in older adults revealed a strong correlation between COVID-19 prevention knowledge and behavior, suggesting that increased understanding leads to improved health practices among these vulnerable groups (Laturette et al., 2023). Similarly, research on travel-related infectious diseases shows that higher levels of knowledge are associated with better attitudes and behaviors, especially among individuals with higher education and smoking habits [2]. Furthermore, educational interventions aimed at women of reproductive age showed that increased knowledge about sexually transmitted infections (STIs) effectively improved preventive behaviors (Pennino et al., 2023). In addition, a study on COVID-19 highlighted that general and specific knowledge of transmission positively impacts preventive behavior, emphasizing the role of attitudes in these relationships (Haque & Chandra, 2021). Finally, information sources were found to moderate the knowledge-behavioural relationship, underscoring the importance of effective communication strategies in community health initiatives (Kim et al., 2021). Collectively, these findings underscore the important role of knowledge in shaping health-related behaviors, especially in the context of infectious disease prevention.

Although the results are positive, there are several challenges that need to be considered for the implementation of similar campaigns in the future. Limitations in infrastructure such as clean water and sanitation facilities remain a major obstacle to the implementation of consistent hygiene practices. Therefore, collaborative efforts are needed between village governments, health institutions, and communities to address this problem, for example through the construction of better sanitation facilities and the provision of clean water sources.

In the academic context, the results of this PKM activity add insight into the effectiveness of technology-based health campaigns in rural areas. This PKM article also contributes to the existing literature by highlighting the importance of an integrated and participatory approach in health campaigns, which can be adapted by other villages facing similar challenges.

CONCLUSION

Community Service Activities (PKM) which are carried out online through the Zoom application with a focus on "Education and Eradication of Infectious Diseases through Hygiene Campaigns in Villages" have succeeded in achieving their goals. The results of the activity showed a significant increase in the knowledge and healthy behavior of the village community related to hygienic practices. The active participation of the community in each education session, as well as positive changes in the implementation of handwashing habits and the improvement of sanitation facilities, prove the effectiveness of online approaches in health campaigns, even in rural areas with limited access to technology.

However, challenges in implementing hygiene practices consistently remain, especially related to infrastructure limitations such as access to clean water and adequate sanitation facilities. Therefore, it is important to involve more parties, including village governments and health institutions, in a sustainable effort to improve sanitation conditions in villages. The integrated and participatory approach applied in this campaign can be a model for similar PKM activities in the future, with appropriate adaptations based on local conditions. Overall, this PKM article makes an important contribution to the literature on public health, especially in the context of technology-based health campaigns in rural areas. It is hoped that the findings of this activity can be the basis for the development of a more effective and wide-impact PKM program in the future.

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