

COMMUNITY EMPOWERMENT THROUGH EDUCATION ON CLEAN AND HEALTHY LIVING TO IMPROVE PUBLIC HEALTH

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ABSTRACT

Improving public health is a key effort in achieving a better quality of life. One strategy that can be implemented is the adoption of Clean and Healthy Living Practices (PHBS) at the household and educational institution levels. This initiative aims to enhance the public's knowledge, understanding, and awareness regarding the importance of implementing PHBS as a means to maintain and improve public health. The program was carried out through health education sessions, interactive lectures, practical simulations, interactive discussions, handwashing practice simulations for elementary school students, and environmental cleanup activities as a form of community empowerment. An evaluation was also conducted to assess improvements in knowledge. The results of the activity showed an increase in the knowledge of the community and students regarding PHBS, an improvement in students ability to practice proper handwashing, and increased community participation in maintaining environmental hygiene. Thus, PHBS-based health education, health promotion, and community empowerment activities can serve as an effective strategy to support the sustainable improvement of public health.

Keywords: community empowerment, health education, PHBS, handwashing.

Introduction

Healthy and Clean Living Behaviors (PHBS) are one of the promotive and preventive efforts in the health sector aimed at improving the quality of life of the community by fostering healthy behaviors in daily life. The implementation of PHBS is crucial because the public's health status is influenced by individual behavior, environmental conditions, and the level of public awareness regarding health maintenance. PHBS can be applied in various settings such as households, schools, workplaces, and the community-as an effort to prevent disease and improve the overall health of the community (Mufidah et al., 2024)

Efforts to improve public health do not rely solely on health services but also require active community involvement through health empowerment and education activities. One effective method for increasing public knowledge and awareness is through health education. Health education helps the public understand the importance of maintaining personal and environmental hygiene and encourages behavioral changes toward healthier habits. Sustained health promotion strategies have been shown to be associated with increased adoption of PHBS at the household level (Jamko et al., 2024)..

Practicing PHBS from an early age is also a crucial step in fostering healthy lifestyle habits in children. The school environment is a strategic setting for instilling healthy behaviors through educational activities and hands-on practice, such as washing hands with soap, maintaining the cleanliness of the school environment, and developing healthy lifestyle habits.

Introducing PHBS to school children can raise students' awareness of the importance of maintaining health and preventing the spread of infectious diseases (Saragih & Pebrianthy, 2024). Although the PHBS program has been in place for a long time, its implementation in the community remains suboptimal. Factors contributing to the low adoption of PHBS include a lack of public knowledge, low awareness of the importance of healthy living behaviors, and limited access to health information. Therefore, ongoing community outreach and empowerment activities are needed to improve public understanding and participation in implementing PHBS. Through structured health education activities, it is hoped that the community will be able to independently adopt clean and healthy living behaviors, thereby improving public health (Siagian & Kusumayanti, 2024).

The government, through the Ministry of Health of the Republic of Indonesia, continues to develop the Clean and Healthy Living Behavior (PHBS) program as part of its promotive and preventive efforts to improve public health. The PHBS program aims to foster behaviors among the public that reflect an awareness of the importance of maintaining personal and environmental hygiene, as well as adopting a healthy lifestyle in daily life. However, the implementation of PHBS in the community remains suboptimal due to various factors, such as low levels of knowledge, a lack of public awareness, and uneven environmental conditions and health services. Therefore, the government continues to promote health promotion and community empowerment activities so that the implementation of PHBS can be sustained across various aspects of community life (Ministry of Health of the Republic of Indonesia, 2021).

Several previous health research reports have shown that only 38.7% of households have adopted PHBS, indicating that this figure is still suboptimal. Similarly, at educational institutions, workplaces, public spaces, and health facilities, the practice of PHBS has not yet been implemented as it should be (Ministry of Health of the Republic of Indonesia, 2021). Based on the findings of the study using the data mentioned above, the research team conducted this community service program to strengthen the movement and community participation in implementing PHBS practices at the household level and within educational institutions, specifically elementary schools.

Ceurih Village is located in Ulee Kareng Subdistrict, Banda Aceh City, Aceh Province. This area is a densely populated region with high levels of community activity and diverse social and environmental conditions. Ulee Kareng Subdistrict is situated in an urban area that is easily accessible via land transportation and has relatively close access to health care centers, such as community health centers (puskesmas) and clinics. Nevertheless, several environmental health issues persist, and there remains low public awareness regarding the implementation of Clean and Healthy Living Practices (PHBS). Most residents of Kampung Lalang Village work in the trade, service, and small and medium-sized enterprise sectors. Additionally, the area has educational facilities ranging from elementary to high schools, which serve as a key platform for health education starting from an early age. The high level of community activity and urban environmental conditions underscore the need to raise public awareness about the importance of maintaining personal and environmental hygiene as a means of disease prevention.

Taking into account the environmental conditions and the importance of improving the community's health knowledge, the Kampung Lalang Subdistrict was selected as the location for community outreach and empowerment activities related to PHBS. These activities are expected to enhance the community's knowledge, awareness, and participation in practicing clean and healthy living behaviors, thereby supporting improvements in the health status of the local community.

This activity aims to improve the community's knowledge and understanding of PHBS practices at the household level, specifically among students at State Elementary School 44 Ceurih in Banda Aceh and the surrounding community.

Research Method

This activity was carried out using methods tailored to the environmental conditions of the community in Ceurih Village, Ulee Kareng Subdistrict, Banda Aceh City, namely:

1. Conducting health education sessions through interactive lectures, demonstrations, practical simulations, and interactive Q&A sessions with the local community regarding the importance of practicing Clean and Healthy Living Behaviors (PHBS) in daily life. This activity involved the residents of Ceurih Village and was supported by local village officials.

2. Conducting health education sessions at elementary schools in the Kampung Lalang area to introduce clean and healthy living habits to students from an early age. These activities included demonstrations of the Handwashing) technique as a preventive measure against infectious (Proper diseases among schoolchildren.
3. Organizing community service activities to clean the environment together with the community as a form of community empowerment in maintaining
4. environmental cleanliness and improving the quality of the living environment. These activities were carried out through mutual cooperation to foster community awareness of the importance of a clean and healthy environment.
5. Evaluation is conducted through pre-tests and post-tests to measure improvements in the knowledge of students, the community surrounding the school, and residents of Ceurih Village, Ulee Kareng Subdistrict, Banda Aceh City.

The target group or partners in this activity are residents of Ceurih Village, Ulee Kareng Subdistrict, Banda Aceh City. The activity involves heads of households or a family member who participates in educational sessions on the implementation of Clean and Healthy Living Practices (PHBS) within the household, as well as activities to maintain environmental health. The community was actively engaged to increase knowledge and awareness regarding the importance of maintaining personal and environmental hygiene in daily life. Additionally, the PHBS outreach program was conducted at an educational institution, namely State Elementary School No. 44 Ceurih in Banda Aceh City. The program targeted 60 students in grades 3, 4, and 5, who received education on the importance of clean and healthy living behaviors from an early age. This activity included a demonstration of proper handwashing techniques as a measure to prevent infectious diseases among schoolchildren. Through this activity, it is hoped that students will be able to adopt healthy lifestyle habits both at school and at home.

Results and discussion

The results of an outreach program on Clean and Healthy Living Practices (PHBS) for the community in Ceurih Village, Ulee Kareng Subdistrict, Banda Aceh City, show that health education activities can improve the community's knowledge regarding the implementation of PHBS in daily life. The activity was held on August 29-30, 2025, at State Elenfentary School No. 44 in Ceurih Village, Ulee Kareng Subdistrict, Banda Aceh City, with 60 students participating.

The pre-test, administered before the educational session, measured the students' knowledge of PHBS. The results showed: Good knowledge: 15 students (25%); adequate knowledge: 25 students (41.7%); and insufficient knowledge: 20 students (33.3%). The average pre-test score was 62.4.

The post-test results, following the educational session and practical activities, were re-evaluated with the following outcomes: Good knowledge: 45 students (75%); adequate knowledge: 12 students

(20%); and insufficient knowledge: 3 students (5%). The average post-test score was 86.7, representing an increase of 24.3 points compared to the pre-test. As for behavioral changes, students were observed to be getting into the habit of washing their hands before meals and after using the restroom; students were more disciplined about disposing of trash in the proper bins; the classroom environment appeared cleaner and neater; and teachers noted an increase in students' awareness of school hygiene.

Results of the Education Session, Demonstration, and Practical Simulation: All participants enthusiastically took part in the activities. Students actively asked questions about the proper way to wash their hands, the appropriate times to wash their hands, how to maintain the cleanliness of the school environment, and the impact of littering. During the practical session, most students were able to correctly demonstrate the six steps of handwashing after watching the demonstration. Another notable result came from the evaluation of the community in the Ceurih neighborhood, conducted using pre-test and post-test methods, which showed an increase in the community's understanding of the importance of clean and healthy living practices within the household. The face-to-face outreach method had a positive impact on increasing community knowledge, enabling the information gained to be applied in daily activities to support improved family health (Anggoro, Harmianto, & Yuwono, 2018).

The outreach activities continued with an interactive discussion with residents of Ceurih Village, Ulee Kareng Subdistrict, regarding the concept of PHBS and the benefits of its implementation within the household environment. During the session, residents were educated on the importance of maintaining personal hygiene, using clean water, ensuring environmental sanitation, and fostering healthy lifestyle habits within the family. The community also understood that implementing PHBS can have a positive impact on a family's quality of life, such as reducing the risk of disease, lowering medical expenses, and increasing family members' productivity. Additionally, a healthy family environment can support children's optimal growth and development, enabling them to learn and engage in activities effectively. The results of the PHBS outreach activity conducted at SD Negeri 44 Ceurih in Banda Aceh also showed an increase in students' knowledge regarding the importance of clean and healthy living behaviors. Outreach activities serve as an effective educational medium for conveying health information to elementary school students through an approach that is easy to understand and interactive (Prasanti & Fuady, 2017).

Following the educational session, students were given a demonstration and hands-on practice on how to properly wash their hands using soap and running water. Before the activity took place, the majority of the students did not understand the steps for handwashing in accordance with health standards. However, after receiving direct education and hands-on practice, the students were able to properly practice the correct handwashing technique.

The implementation of health education activities in elementary schools aims to instill healthy lifestyle habits from an early age. School-aged children were selected as the target audience because this period is a critical stage in the formation of healthy behaviors and habits.

Introducing PHBS early on is expected to raise students' awareness of the importance of maintaining their own health and that of their environment. Additionally, the implementation of PHBS

in the school environment can help prevent the spread of infectious diseases among children and support an optimal learning process for students. UNICEF research also indicates that the prevention of noncommunicable diseases must begin at an early age through the cultivation of healthy lifestyle habits among schoolchildren (Brumana et al., 2017).

Community empowerment activities carried out in Ceurih Village, Ulee Kareng Subdistrict, Banda Aceh City, demonstrated active community participation in maintaining environmental cleanliness. Community members were directly involved in community service activities to clean the surrounding environment and supported independent waste management. The community's enthusiasm for these activities indicates a growing awareness of the importance of maintaining environmental cleanliness as a key disease prevention measure. The community also understands that a clean and healthy environment can have a positive impact on the health of families and the community as a whole.

Community empowerment is a process aimed at enhancing the capabilities and awareness of community members so they can identify, utilize, and develop their potential in an effort to improve their quality of life and environmental health.

Through empowerment activities, community members are encouraged to actively participate in creating a healthy and comfortable environment. Community empowerment activities in Ceurih Village, Ulee Kareng Subdistrict, Banda Aceh, serve as an important form of health promotion because they directly involve the community in maintaining the cleanliness and health of their living environment (Sari, Putra, & Wahyuni, 2024).

The educational materials provided to the community cover the concept and benefits of implementing Clean and Healthy Living Practices (PHBS) at the household level. The education provided covers the importance of using clean water, washing hands with soap, maintaining environmental sanitation, consuming nutritious food, engaging in regular physical activity, and avoiding smoking indoors. This outreach aims to increase community knowledge and awareness so that they can independently adopt healthy lifestyle behaviors in their daily lives.

In addition to community outreach, PHBS educational activities were also conducted at SD Negeri 44 Ceurih in Banda Aceh through health education sessions and hands-on demonstrations of proper handwashing techniques. The material covered included the importance of washing hands with soap, maintaining a clean school environment, disposing of trash properly, eating healthy foods, and practicing personal hygiene. Hands-on handwashing practice sessions were conducted to help students understand the proper steps for washing their hands in accordance with health standards to prevent the spread of infectious diseases.

Introducing PHBS from an early age is crucial for fostering healthy lifestyle habits among schoolchildren. Practicing proper handwashing is known to help reduce the risk of infectious diseases, including those related to personal and environmental hygiene. Furthermore, good student health can support the learning process and improve concentration in school. Therefore, health education for school-age children is a key step in efforts to sustainably improve public health (Rahmadani & Fitriani, 2023).

To assess the success of the program's implementation, monitoring and evaluation were conducted throughout the program until its completion. The evaluation involved direct observation and an assessment of improvements in community members' and students' knowledge regarding PHBS. The evaluation results indicated that community members and students were able to understand and apply clean and healthy living behaviors in their daily lives.

Based on the monitoring results of all implemented programs-namely, PHBS outreach at the household level, PHBS education and practice sessions for elementary school students, and community empowerment activities to maintain environmental health in Ceurih Village, Ulee Kareng Subdistrict, Banda Aceh City-it was found that the level of community participation was relatively high. This was evident from the community's enthusiasm in attending the outreach sessions, listening to the presented material, and actively participating in discussion and Q&A sessions with the implementation team. The community also demonstrated interest by asking various questions related to the application of PHBS in daily life.

The PHBS outreach session and demonstration of proper handwashing techniques at SD Negeri 44 Ceurih in Banda Aceh City also received a positive response from the students. This was evident in the students' ability to correctly demonstrate the steps for proper handwashing in accordance with the material presented. Additionally, the students actively participated in the educational activities and demonstrated a better understanding of the importance of maintaining personal hygiene and the cleanliness of the school environment.

Community participation was also evident in the joint community service activity to clean the environment. Community members were directly involved in maintaining the cleanliness of their living environment as a form of concern for environmental health. This activity demonstrated an increased public awareness of the importance of creating a clean and healthy environment to prevent the spread of various diseases.

To assess the impact of the program's implementation, a direct evaluation was conducted by visiting several residents' homes and the school environment after the activities were completed. The implementation team observed the application of PHBS in household settings as well as clean and healthy living behaviors among elementary school students.

The evaluation results showed that the majority of the community had begun to practice clean and healthy living behaviors in their respective homes. Additionally, elementary school students were also able to practice proper handwashing habits and maintain the cleanliness of the school environment.

This community service program, which combines PHBS education and practice, can be further developed in various other settings, such as workplaces, public facilities, and healthcare facilities. Households and schools are strategic environments for instilling healthy living habits; therefore, similar activities can be implemented in other regions, particularly in areas that still have limited access to health information. In addition to benefiting the community, this activity also involves public health students as a way to apply the knowledge they have gained during their college education and to gain firsthand experience in community empowerment activities aimed at improving public health.

Conclusion

The community service activity carried out in Ceurih Village, Ulee Kareng Subdistrict, Banda Aceh City, had a positive impact on improving public health. This activity succeeded in increasing the community's knowledge regarding the importance of practicing Clean and Healthy Living Behaviors (PHBS) in daily life. The community has gained a better understanding of the benefits of PHBS and has become more aware of the importance of maintaining personal hygiene, a clean environment, and a healthy lifestyle as preventive measures against various diseases. Additionally, the educational outreach conducted at SD Negeri 44 Ceurih in Banda Aceh City has positively impacted students' knowledge of PHBS. Students not only understand the concept of clean and healthy living but are also able to practice proper handwashing techniques in accordance with health standards. It is hoped that this habit will help prevent the spread of infectious diseases and support students' health both at school and at home. Community empowerment activities have also fostered greater public awareness of the importance of directly participating in maintaining the cleanliness of their living environment. Community members have demonstrated active participation in community service projects and environmental sanitation efforts as a form of shared responsibility in creating a healthy environment. Through these activities, it is hoped that the community will adopt PHBS practices sustainably, thereby ensuring that the health of the community in Ceurih Village continues to improve.

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