
Strengthening Public Understanding of Household K3 as an Effort to Prevent Accidents and Daily Health Risks in Ujung Padang Subdistrict

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Abstract

Occupational Safety and Health (K3) is not only important in formal work environments, but is also very relevant in home life. Many domestic accidents occur due to a lack of public understanding of the basic principles of K3, such as electrical hazards, fires, and handling minor injuries. This community service activity aims to improve public understanding in Ujung Padang Village, Padangsidempuan City, regarding the importance of implementing K3 households as an effort to prevent daily risks. The implementation method is carried out directly through lectures, interactive discussions, demonstrations, and simulations. A total of 40 residents actively participated in this activity. Evaluation using pre-tests and post-tests showed a significant increase in participants' understanding of hazard identification and preventive measures at home. The results of the activity prove that community-based K3 education is effective in forming an alert attitude and safe behavior. This program is expected to be a model for sustainable development to create a culture of safety awareness from home

Keywords: Household K3, Safety, Public Education, Accident Prevention, Health Risks.

INTRODUCTION

Occupational Safety and Health (K3) is basically designed to protect humans from various potential hazards and risks that can cause accidents or health problems (Permayasa et al. 2023). So far, the concept of K3 is still often narrowed down to the context of industry, construction, or other formal workplaces. In fact, K3 principles are very important to apply in the most basic environment, namely the household. The home environment, although it seems safe, actually contains many potential hazards that are often not realized by its occupants - ranging from the risk of fire due to negligence in the use of electricity or gas stoves, falls due to slippery floors, injuries from sharp objects, to health problems due to exposure to household chemicals or poor sanitation (Syarah et al. 2025). Many domestic accidents that occur actually stem from ignorance, negligence, or lack of education about prevention. Data from the Indonesian Ministry of Health and reports from various disaster management agencies show that household accidents are one of the main contributors to minor to serious injuries, both in children, adults, and the elderly. Children are often victims due to minimal supervision and lack of understanding of the dangers in the home environment. They can easily get electrocuted, get burned, or be poisoned by cleaning agents that are placed carelessly. Meanwhile, adults are also often victims of unsafe habits, such as connecting electrical cables carelessly or cooking while leaving the kitchen (Moslimah 2025).

However, public attention to safety aspects at home is still very low. Many people think that accidents at home are common and do not require special handling. In fact, the principles

of K3 can be applied simply and practically to minimize these risks (Kisno et al. 2022). The implementation of K3 in the household does not have to be complicated. For example, by ensuring that electrical cables are not peeled, storing sharp tools in a safe place, using non-slip mats in the bathroom, or educating children about the dangers of fire and the importance of not playing with electrical plugs. Awareness of the importance of small things like this can be a strong foundation in creating a safe and healthy home for all family members (Lastari et al. 2024; Permayasa et al. 2024).

Furthermore, strengthening the understanding of household K3 not only provides individual benefits, but also builds a culture of safety in the community at large. People who are accustomed to living in a safe environment will be more adaptable and act appropriately in the face of emergency conditions, such as fires or natural disasters. They will be more responsive in saving themselves and others because they already have a basic mindset and safe habits since at home (Handayani, Apriani, and Sudirman 2024).

In this context, the role of education is very important. Efforts to convey knowledge and skills about household K3 to the community through schools, communities, and the media need to be improved. One effective approach is through the Community Service (PkM) program involving educational institutions. Through this approach, institutions such as universities can directly reach the community, identify educational needs, and deliver safety materials with methods that are communicative, applicable, and appropriate to the local context.

In Ujung Padang Village, Padangsidempuan City, there are still conditions of houses that pay little attention to safety aspects, such as non-standard electrical installations, storage of flammable materials near fire sources, inadequate air ventilation, and habits that can increase the risk of accidents and diseases. In addition, some people do not yet have knowledge about simple steps that can be taken to prevent household accidents and maintain environmental health.

Therefore, a community service program is needed that focuses on strengthening the understanding and application of household K3 principles. This activity aims to raise awareness, provide practical knowledge, and form a preventive mindset among the community, so that they are able to recognize potential hazards in the home environment and implement preventive measures independently. With the right education and appropriate approach methods, it is hoped that the people of Ujung Padang Village can understand the importance of safety and health at home and make it part of their daily lives. Consistent implementation of household K3 will not only reduce the number of accidents and health problems, but also create a safer, healthier, and more comfortable living environment for all family members.

RESEARCH METHODS

This community service activity was organized by the Occupational Safety and Health Study Program, Central Health Science College, located in Ujung Padang Village, Padangsidempuan City, with 19 participants from the general public. The implementation method was carried out directly through lectures (presentations), interactive discussions, demonstrations, and simple simulations. The activity began with an opening by the moderator, followed by the delivery of material by the speaker discussing the importance of implementing household K3 in preventing accidents and daily health risks. The main session focused on demonstrating safety practices at home, such as recognizing hazards in the kitchen, bathroom, and electrical installations, as well as steps for handling minor injuries. The activity was closed

with a question and answer session and closing by the moderator. Evaluation was carried out through pre-tests and post-tests to measure the increase in participants' understanding. It is hoped that this activity will be able to increase public awareness of the importance of K3 in household life.

RESULTS AND DISCUSSION

Community service activities carried out by lecturers and students with the theme "Strengthening Community Understanding of Household K3 as an Effort to Prevent Accidents and Daily Health Risks" have been successfully implemented in Ujung Padang Village, Padangsidempuan City on June 14, 2025. This activity received high enthusiasm from the community, especially housewives and teenagers, who are the groups most often active in the home environment.

Based on the results of the pre-test questionnaire, the majority of participants (around 60%) did not fully understand the concept of K3 in the household. Many of them still think that occupational safety and health are only relevant in industrial or office environments. After the implementation of the activity, the results of the post-test showed a significant increase, with more than 85% of participants being able to correctly answer questions related to the risk of accidents at home, how to prevent them, and initial handling of household hazards. This shows that direct education through lectures, discussions, and real practices has proven effective in forming public awareness and understanding of the importance of implementing K3 in the residential environment.

The delivery methods used, namely interactive presentations, demonstrations of safety equipment, and simple simulations have been proven to increase participant involvement. In the discussion session, participants actively shared personal experiences related to household incidents such as electric shocks, falls in the bathroom, or fires caused by gas stoves. Through the discussion of real cases, the K3 material felt more relevant and easier to understand. Practical demonstrations, such as how to extinguish small fires with simple tools, as well as initial treatment for minor burns or falls, were very popular with participants because they could be directly applied in everyday life. This practical and contextual approach strengthened understanding and built collective awareness to create a safe and healthy home. After participating in the activity, most participants expressed their commitment to implementing safe habits at home, such as not leaving electrical cables exposed, ensuring the kitchen is clean and free from flammable materials, and storing household chemicals in a safe place out of reach of children. Participants also expressed their intention to disseminate the information obtained to other family members. This shows a change in attitude and an increase in collective awareness, which is the initial capital in building a safety culture at the household level.



CONCLUSION

The results of the activity show that strengthening community understanding of household K3 can increase knowledge, change attitudes, and encourage new habits that are safer and healthier in everyday life. The implementation of K3 at home is not only about technical tools or procedures, but also about building a mindset and behavior that is aware of risks. Therefore, educational activities like this are important to continue to be implemented in order to prevent accidents and health risks that can occur in the household environment.

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