



Injury Prevention and Treatment among Elderly Individuals in the Sukoharjo Village's Posyandu Lansia Sehat Bugar

Ari Sapti Mei Leni¹, Rini Widarti¹, Irma Mustika Sari¹, Erika Dewi Noorarti¹

Universitas 'Aisyiyah Surakarta¹

Corresponding Email* : riniwidarti@aiska-university.ac.id

Article Info:

Submitted: 11 March 2023

Revised: 5 July 2023

Accepted: 5 August 2023

Publisher: 19 August 2023

Keywords: *Injuries; injury prevention; treatment; occupational accidents; elderly population; village.*

Abstract

The household environment is vulnerable to domestic accidents, underscoring the necessity of possessing fundamental expertise in first aid as the primary approach to addressing such incidents before subsequent medical interventions. Insufficient attention to this primary measure can result in more severe injuries. Notably, a deficiency exists in targeted interventions that aim to enhance the elderly population's comprehension of strategies to prevent and treat domestic accidents. Two approaches have been implemented to tackle this issue and augment the elderly population's understanding. These methods encompass educational lectures and practical demonstrations tailored to seniors, specifically focusing on preventing and treating domestic accidents. As a result, there is observable enhancement in knowledge after the provision of information through community health education initiatives. Preceding the dissemination of insights into injury prevention and treatment among the elderly, knowledge distribution is categorized: 11% categorized as 'good,' reflecting a high level of knowledge; 33% as 'moderate,' indicating a sufficient level; and 56% as 'poor,' representing a lower level of knowledge. A noticeable increase is observed upon sharing the information, with 61% rise in 'good' categories, a corresponding 39% increase of 'moderate' categories, while the 'poor' category remains unchanged. The findings indicate increased understanding among the elderly concerning injury prevention and treatment of domestic accidents.

1. Introduction

An accident, an unforeseen event with an unexpected occurrence, can lead to unanticipated consequences. These unforeseen incidents can result in material losses within households if not promptly managed before seeking medical attention. The range of

household accidents is extensive, encompassing various incidents. However, many individuals need to gain the knowledge and skills to handle such situations within their homes effectively. The exclusive instance takes place within the Integrated Health Post, namely Sehat Bugar, situated in Sukoharjo Village. Data was acquired by conducting interviews involving elderly individuals and senior health cadres at the Integrated Health Post (Posyandu). Accidents and injuries are pervasive across diverse settings, including roads, homes, farms, schools, sports facilities, industrial sites, and public spaces. The incidence of such injuries slightly increased from 7.5% to 8.2%. Effective management of these incidents requires applying first aid techniques to offer initial care and comfort until medical assistance becomes available. Administering first aid mandates swift and accurate action.

As reported by the Health Research & Development Agency of the Ministry of Health of the Republic of Indonesia (2019), domestic accidents constituted the largest proportion of injury incidents in 2018, accounting for 44.7% of all cases. A study by Noor and Prakoso (2020) revealed that injuries most commonly occur within one's residential neighborhood, suggesting that individuals are more susceptible to injuries in the places they frequent often. Before seeking healthcare, individuals need to be acquainted with the appropriate course of action through a dissemination activity.

An accident is an event that occurs unexpectedly and lacks predictability, indicating the absence of intentional action. Accidents can result in varying degrees of material loss and suffering, ranging from minor to severe. Sinaga and Tarigan (2015) have identified several common household accidents, including cuts, burns, falls, and electrocutions. An injury damages skin tissue from heat exposure (e.g., fire, chemicals, radiation, electricity), medical procedures, or physiological changes, ultimately disrupting anatomical function and structure (Purnama, Sriwidodo & Ratnawulan, 2017).

Many individuals believe that their home provides the highest level of safety. However, it is important to acknowledge that the household environment poses numerous dangers and risks. The threats and potential risks (Sari, et al., 2024) include a range of concerns, such as fires, foodborne illnesses, exposure to chemicals, and accidents. With ties to family dynamics, poverty, high population density, and inadequate healthcare and education access, domestic accidents underscore broader societal concerns. Furthermore, domestic accidents can be influenced by factors such as low capacity and cost differences, which can be reflected in the characteristics and lifestyles of specific groups of individuals (Rahmawati, Sriyono & Ashari, 2014). Suryanto, Anam, A., Andodo (2016) demonstrate that injuries predominantly occur in areas individuals frequently inhabit. This implies that the frequency of injuries is highest in the locations where individuals spend a significant amount of time. In household injury incidents, individuals often provide initial care, especially mothers prioritizing family welfare.

Domestic accidents can arise from various household activities, encompassing routine tasks of varying intensity. These tasks, spanning light and heavy domestic duties, are integral to daily routines. Vulnerable household activities include physically demanding tasks like clothes washing, involving water drainage, and extended standing. Prolonged engagement in such activities can lead to discomfort in the back, thighs, and buttocks (Purwanti *et al.*, 2017). Most injuries resulting from domestic accidents are categorized as mild, implying self-management at home without medical intervention. It is imperative to keep essential medications readily available in a home first aid kit (P3K box) to ensure proper treatment of wounds. The proper application of first aid is pivotal in alleviating victim distress. Delays or mistakes in administering first aid can have fatal consequences for needy individuals.

Engaging in such actions exacerbates the victim's condition and carries the potential for fatality.

Improperly executed initial treatment can worsen wounds, raising concerns about infection and pathogen dissemination, which could result in adverse physical and psychological effects (Jamil & Laksono, 2020). The appropriate first-aid response will differ based on factors such as the nature of the injury, the cause of the wound, the size of the wound, and the individual's knowledge of first aid (Rachmawati, Saputro & Anam, 2021). Wounds can be categorized as acute or chronic, depending on the duration and progression of the healing process. Acute wounds refer to injuries that typically heal within 8-12 weeks, exhibiting minimal scarring. Chronic wounds are characterized by a prolonged healing process, lasting beyond 12 weeks, and can potentially result in tissue damage.

Acute wounds predominantly stem from external mechanical injuries like skin contact with hard or sharp surfaces, gunshot wounds, and postoperative incisions. Burns and chemical injuries, including radiation, electrical strikes, and exposure to corrosive chemical fluids and heat sources, can also cause acute injuries. On the other hand, chronic injuries arise from factors like inadequate healing due to physiological conditions (e.g., diabetes, cancer), persistent infections, and insufficient treatment (Baxter in Purnama, Sriwidodo & Ratnawulan, 2017). Household injuries fall under the acute category, typically healing spontaneously without extensive medical intervention. However, it is imperative to acknowledge that injuries resulting from accidents within the home should not be overlooked, as inadequate treatment can potentially result in complications. The primary complication arising from inadequate treatment of household wounds is infection. An infection may occur if the wound exhibits thick discharges that are green, yellow, or brown or are accompanied by a foul odor suggestive of decay. Treating burn injuries initially involves first aid, including cooling the affected area with running water (Ramdani, 2019).

In their research, Noor and Prakoso (2020) emphasize that first aid provides initial comfort and stabilization, offering pain relief and calmness to victims until expert responders take over. Hopefully, a more calm condition can alleviate the sufferer's pain. Herawati & Argarini in Rachmawati, Saputro and Anam (2021) highlight the significance of first aid in averting adverse consequences and ensuring well-being, especially when medical attention is necessary. In addition, culinary activities, specifically those conducted in the kitchen, commence in the morning and persist until the evening. Engaging in household activities such as rubbing clothes can potentially result in accidents. This particular activity is typically carried out while sitting or standing on the floor, which can lead to discomfort and complaints related to the shoulder, waist, and thighs. These activities commonly involve coal or electrocarbon tools (Rahmawati, 2014).

Leni and Triyono (2018) note that individuals aged 30 to 40 may experience a decline in physical activity and working capacity due to the gradual reduction of body tissue. As individuals grow older, they experience degenerative aging processes that impact various aspects of their lives, including physical, cognitive, emotional, social, and sexual changes (Nasri & Leni, 2019). The objective of this health disclosure is to offer guidance on the prevention and treatment of injuries resulting from household accidents. It aims to provide concise and accessible information on effectively addressing such accidents and enhancing older people's capacity to administer basic wound care before their transfer to a healthcare facility.

From these instances, it's evident that domestic accidents can occur anytime. Therefore, it is imperative to administer appropriate initial care to prevent the worsening of subsequent issues. Drawing on the initial findings of a survey carried out at the Integrated Health Post (Posyandu) for the Elderly in Kregan, Sukoharjo Region, interviews with some elderly individuals and health cadres revealed that there has been a lack of health assessments focused on preventing and treating injuries resulting from household accidents, particularly among the elderly population. Furthermore, there needs to be more knowledge regarding the appropriate first aid measures for such incidents. The primary focus of other researchers is predominantly on middle-aged mothers who are primarily responsible for household duties. Preventing and treating injuries resulting from domestic accidents in the elderly necessitates heightened attention due to their diminished physical capabilities, making them more susceptible to such accidents. The authors aim to provide information to elderly individuals on preventing household accidents and effectively managing injuries when they occur through health education initiatives.

2. Methods of Implementation

Before initiating the community service endeavor, the initial step involves obtaining permission and explaining the objectives and intentions underlying the community service program at the Integrated Health Post for the Elderly, specifically referring to Posyandu Lansia Sehat Bugar in the Sukoharjo Region. Upon obtaining approval, the community service team is provided with the coordination of activity schedules. The utilization of the Participatory Rural Appraisal (PRA) method within the context of community service underscores the emphasis on empowerment and public involvement. This approach highlights the involvement of the public through the entire program, from its initiation to its conclusion. The multi-stage implementation of the program takes place described in the figure1:

- a. Strategy introduction and discussion for alleviating challenges encountered by cadres and elderly individuals

During this phase, the focus is on identifying the problems individuals in the cadet and senior age groups face. Specifically, the aim is to address the prevention and treatment of injuries resulting from domestic accidents and the response of seniors to such incidents. This activity employs a PowerPoint presentation to illustrate the primary causes of domestic accidents, including hot water, electricity, and fires. The cadres and elders acknowledge the issue they encounter: the lack of direct training in preventing and treating injuries resulting from domestic accidents.

- b. Health education campaigns

The health education campaigns refer to the process by which individuals learn and internalize the norms, values, and behaviors associated with participating in social activities. The community service team utilized lectures and interactive discussions to familiarize individuals with the technical aspects of the problem-solving program that was to be implemented. The media employed in this context includes power points and videos, facilitating participants' comprehension and adherence to the message.

c. Domestic accidents prevention training

The training begins with initial demonstrations conducted by the team, followed by ongoing training led by the cadres and elders. This training program covers three main topics: first aid for household burns, proper arrangement of kitchen and home equipment, and techniques for managing relaxation to alleviate pain in domestic accidents.

d. Supplementary program implementation

The purpose of the supplementary program implementation is to enhance the knowledge and skills of cadres and elderly individuals in preventing and treating injuries resulting from accidents within the home. Both cadres and elderly individuals receive regular updates on valuable first-aid injury information. This supplementary activity involves the direct observation of cadres and elders as they independently address injuries resulting from domestic accidents.

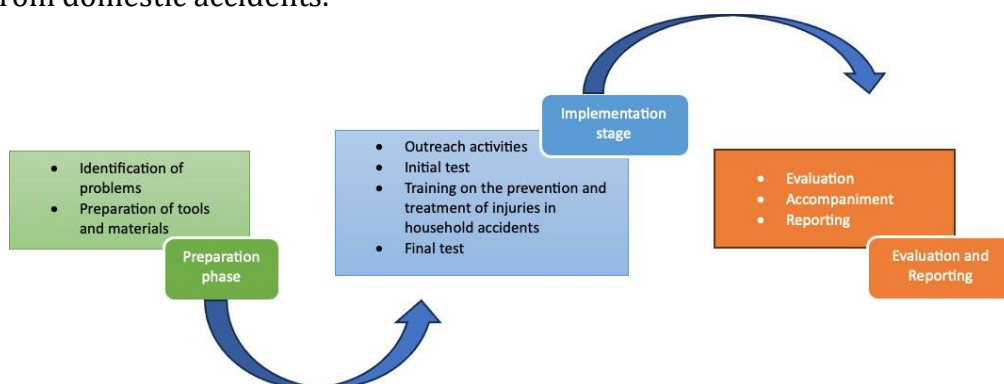


Figure 1. Stages of Program Implementation

3. Results and Discussion

The dissemination took place at the Integrated Health Post (Posyandu) Sehat Bugar within Kregan Village, specifically located in Neighbourhood 02 (RT 02) of Hamlet 08 (RW 08), Sukoharjo Sub-District. The dissemination was attended by a total of 17 elderly individuals. This activity aims to perform a health assessment and provide a demonstration to enhance the elderly population's understanding of injury prevention in household accidents. Additionally, the activity aims to educate them on appropriate actions to take in case of an injury resulting from a household accident.

The following presents the findings of a comparative analysis conducted on pre- and post-health assessments regarding preventing and treating injuries in occupational accidents among elderly individuals which can be shown in figure 2. This activity aims to perform a health assessment and provide a demonstration to enhance the elderly population's understanding of injury prevention in household accidents. Additionally, the activity aims to educate them on appropriate actions to take in case of an injury resulting from a household accident.

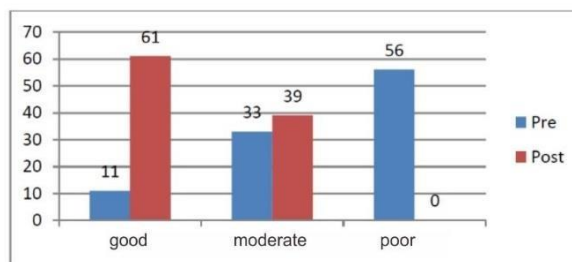


Figure 2. Levels of Knowledge

The analysis of pre-test and post-test results indicates that the elderly individuals' level of knowledge has increased following the health certification. Before receiving health education, the elderly population's knowledge regarding preventing and treating injuries resulting from household accidents was categorized as follows: 56% had poor knowledge, 33% had moderate knowledge, and 11% had good knowledge. Subsequently, following health education, the elderly population improved their understanding of preventive measures and treatment options for household accidents. Specifically, 61% of individuals exhibited a commendable level of knowledge, while 39% displayed a satisfactory level of understanding. Notably, no participants fell into the lower category of knowledge. The analysis reveals that the elderly has limited knowledge of preventing and treating injuries. This knowledge needs to be more robust, with only a small proportion falling into the good category. Upon completing the health education initiatives, it becomes evident that there are notable changes in the distribution of presentations across different categories. Most presentations fall under the "good" category, followed by a sufficient number of presentations in the "moderate" category. Conversely, there is a significant decrease in the number of presentations in the "poor" category, with no participants representing this category. This refers to achieving the highest possible result in health development, specifically by transforming previously inadequate knowledge into a positive state.

Throughout the dissemination of health education campaigns held at the Integrated Health Post within the Sukoharjo region, particularly at the Posyandu Lansia Sehat Bugar (Sehat Bugar Elderly Integrated Health Post), which can be shown in the figure 3, a noticeable observation emerged: elderly individuals exhibited restricted comprehension concerning the prevention and management of injuries arising from domestic accidents. However, after receiving information and guidance on injury prevention and wound management, the average level of knowledge among the elderly improved significantly. According to a study conducted by Fatmawati & Wulandari (2019), training in simple wound care through design, demonstration, and re-demonstration has enhanced knowledge and skills in performing basic wound care.

Throughout this process, the elderly population consistently participates and demonstrates a positive level of responsiveness. The significance of prioritizing prevention over cure has been duly acknowledged. Understanding the prevention and treatment of burns among the elderly becomes crucial, given the substantial influence such incidents can have on their daily activity. implementation of activities can be shown in the figure 3:



Figure 3. Dissemination of materials

Dissemination of health education campaigns is a learning activity to cater to specific individuals needs, as various studies have shown. Effective use of learning media can facilitate achieving health education goals and enhancing information reception. Nies McEwen in Mardhiah, Abdullah and Hermansyah (2015) note disparities between writing tools and words, where writing aids in processing and knowledge acquisition more effectively than relying solely on verbal communication. Consequently, previously unaware elderly individuals undergo knowledge transformation and become informed. According to Wahdini in Nasri and Leni (2019), combining lecture methods with posters or leaflet media enhances knowledge and attitude.

The methodology employed is the demonstration technique. This instructional approach uses precautions to facilitate understanding and provide process or content explanations. Demonstrative media usage reduces errors, a significant advantage over relying only on auditory or visual information (Sari, Safitri & Utami, 2018).

One advantage of using demonstration media is their ease of use. During the delivery, movements, and processes are performed, eliminating the need for excessive verbal explanations. Additionally, any questions or doubts can be addressed immediately during the demonstration. According to Silaban's finding in Sari, Safitri and Utami, (2018), the use of leaflets resulted in a 40% retention rate of information, whereas the utilization of demonstration methods led to a significantly higher level of understanding, reaching 90%.

Gejir & Ratih in Iswati and Sulistyana (2019) propose two behavioral intervention approaches: education or coercion/pressure and health care. The educational approach is most suitable for public health issues tied to behavioral factors.

Health education aims to disseminate information and foster confidence in individuals by providing supplementary scientific knowledge. Older adults receiving health education will learn about injury prevention and first aid for household accidents.

4. Conclusion

The community service conducted at the Integrated Health Post in the Sukoharjo region, specifically at Posyandu Lansia Sehat Bugar (Sehat Bugar Elderly Integrated Health Post), unfolded smoothly and succeeded. Elderly individuals proactively and eagerly engaged with the content presented by the researcher, resulting in heightened knowledge levels both before and after approval.

The sustainability plan for this community service program involves conducting consistent dissemination activities at Posyandu Lansia Sehat Bugar (Sehat Bugar Elderly Integrated Health Post) in the Sukoharjo region.

These collaborative efforts involve Posyandu cadres who will demonstrate household accident wound care at Posyandu Lansia Sehat Bugar (Sehat Bugar Elderly Integrated Health Post) in the Sukoharjo region. Consistent activities, discussions, and evaluations will enhance the knowledge of Posyandu Lansia Sehat Bugar (Sehat Bugar Elderly Integrated Health Post) cadres in first aid and domestic accident prevention. These endeavors aim to enhance older people's understanding.

Following the completion of this activity, participants displayed increased knowledge. This growth fostered optimism as participants felt better equipped to prevent injuries and offer first aid to family members. Importantly, an individual's knowledge and behavior significantly influence their capacity to provide effective and prompt first aid to older people.

5. Acknowledgements

The authors extend their appreciation to all individuals who have supported the community service, particularly the cadres of Posyandu Lansia Sehat Bugar (Sehat Bugar Elderly Integrated Health Post) in the Sukoharjo region and the dedicated team, for their contribution to ensuring the successful implementation of this activity.

6. References

- Fatmawati, S. & Wulandari, R. (2019). Perawatan Luka Sederhana Kecelakaan Kerja Di Rumah Tangga Di Kelurahan Nusukan Surakarta. *GEMASSIKA : Jurnal Pengabdian Kepada Masyarakat*, 3(1), pp. 35–45.
- Iswati & Sulistyana, C. S. (2019). Peningkatan Pengetahuan Lansia Tentang Pencegahan Jatuh Melalui Penyuluhan Di Asrama Brimob Rt 02 Rw 02 Kelurahan Morokrembangan Kecamatan Krembangan Surabaya. *Adi Husada Nursing Journal*, 5(1), pp. 6–11.
- Jamil, M. & Laksono, B. B. (2020). Hubungan Pengetahuan Dan Sikap Orang Tua Dengan Praktik Pencegahan Cedera Pada Anak Pra Sekolah. *JURNAL SURYA: Jurnal Media Komunikasi Ilmu Kesehatan*, 12(1), pp. 16–25.
- Kemendes RI. (2019). *Data Informasi Profil Kesehatan Indonesia 2018*, Kementerian Kesehatan Republik Indonesia. Jakarta: Kementerian Kesehatan Republik Indonesia.
- Leni, A. S. M. & Triyono, E. (2018). Perkembangan Usia Mempengaruhi Kekuatan Otot Punggung Pada Orang Dewasa Usia 40-60 Tahun. *GASTER: Jurnal Kesehatan*, 16(1), pp. 1–5.
- Mardhiah, A., Abdullah, A. & Hermansyah. (2015). Pendidikan Kesehatan Dalam Peningkatan Pengetahuan, Sikap Dan Keterampilan Keluarga Dengan Hipertensi - Pilot Study. *Jurnal Ilmu Keperawatan*, 3(2), pp. 111–121.
- Nasri & Leni, A. S. M. (2019). Pendampingan Lansia Dalam Konteks Menjaga Kesehatan Fisik di Posyandu Lansia Ketingan Kulon Jebres Surakarta. *GEMASSIKA: Jurnal Pengabdian Kepada Masyarakat*, 3(2), pp. 134–143.
- Noor, H. Z. & Prakoso, D. A. (2020). Pertolongan Pertama Kecelakaan Di Keluarga. *Prosiding Seminar Nasional Program Pengabdian Masyarakat 2020*. Yogyakarta: Universitas Muhammadiyah Yogyakarta, pp. 1339–1342.

- Purnama, H., Sriwidodo & Ratnawulan, S. (2017). Review Sistematis: Proses Penyembuhan dan Perawatan Luka. *Farmaka*, 15(2), pp. 251–258.
- Purwanti. (2017). *Gambaran Pengetahuan Ibu Rumah Tangga Dalam Penanganan Pertolongan Pertama Pada Kecelakaan Di Rumah Tangga Di Kelurahan Sawahan Kecamatan Ngemplak Kota Boyolali*. Sekolah Tinggi Ilmu Kesehatan 'Aisyiyah Surakarta.
- Rachmawati, D., Saputro, R. G. & Anam, A. K. (2021). Pertolongan Pertama Keluarga Pada Luka Bakar Sebelum Dibawa Ke Igd Rsud Ngudi Waluyo Wlingi. *Journal of Borneo Holistic Health*, 4(1), pp. 63–72.
- Rahmawati, I. (2014). Perbedaan Efek Perawatan Luka Menggunakan Gerusan Daun Petai Cina Petai Cina (*Leucaena Glauca*, Benth) Dan Povidon Iodine 10 % Dalam Mempercepat Penyembuhan Luka Bersih Padamarmut (*Cavia porcellus*). *Jurnal Wiyata*, 1(2), pp. 227–234.
- Rahmawati, M. D., Sriyono & Ashari. (2014). Analisis Keterampilan Berpikir Kritis Siswa pada Pembelajaran Fisika dengan Pendekatan Starter Eksperimen. *Jurnal Radiasi*, 5(1), pp. 73–76.
- Ramdani, M. L. (2019). Peningkatan Pengetahuan Bahaya Luka Bakar Dan P3K Kegawatan Luka Bakar Pada Anggota Ranting Aisyiyah. *Seminar Nasional Hasil Penelitian dan Pengabdian Pada Masyarakat IV Tahun 2019 "Pengembangan Sumberdaya menuju Masyarakat Madani Berkearifan Lokal"*. Purwokerto: LPPM - Universitas Muhammadiyah Purwokerto, pp. 103–106.
- Sari, D. N., Anna, A. N., Taryono, T., Maulana, M. F., & Khumaeroh, D. N. F. (2024). Detection of Flood Hazard Potential Zones By Using Analytical Hierarchy Process in Tuntang Watershed Area, Indonesia. *Geographia Technica*, 19(1).
- Sari, S. I., Safitri, W. & Utami, R. D. P. (2018). Pengaruh Pendidikan Kesehatan Dengan Metode Demonstrasi Terhadap Praktik Pertolongan Pertama Luka Bakar Pada Ibu Rumah Tangga Di Garen Rt.01/Rw.04 Pandean Ngemplak Boyolali. *Jurnal Kesehatan Kusuma Husada*, 9(1), pp. 98–105.
- Sinaga, M. & Tarigan, R. (2015). Penggunaan Bahan Pada Perawatan Luka. *Jurnal Keperawatan Klinis*, 3(1), pp. 1–5.
- Suryanto, Anam, A., Andodo, C. (2016). Pencegahan Kecelakaan Kerja Berbasis Human and Technical Approach Di Purwokerto Utara. *Jurnal Kesmas Indonesia*, 8(2), pp. 80–91.