

ANALYSIS OF KNOWLEDGE AND ATTITUDES OF THE COMMUNITY IN RW 01 MUARA FAJAR REGARDING PRE- HOSPITAL MANAGEMENT OF TRAFFIC ACCIDENTS VICTIMS

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Abstract

Traffic accidents are one of the most common health problems in the world, resulting in many fatalities and material losses. Appropriate initial or pre-hospital treatment of traffic accidents is very important and good public knowledge and attitudes regarding first aid measures in traffic accidents can minimize the severity of traffic accident victims. The aim of this research is to determine the knowledge and attitudes of the people of RW 01 Muara Fajar regarding pre-hospital treatment of traffic accident victims. This research used a descriptive analytical design with a sample of 124 people and used the cluster random sampling (CRS) sampling technique or random sampling based on clusters or regions. The instrument used was a knowledge and attitude questionnaire. Based on the frequency distribution of respondent characteristics, the majority of the population is aged 26-35, accounting for 39.5%. In terms of gender, the majority of the population is female, making up 58.1%. Regarding education, the majority of the population has a high school diploma, totaling 87.1%. For occupation, the majority of the population works as laborers, comprising 25.8%. Additionally, the majority of the population has not received information on pre-hospital care, amounting to 81.5%. Based on the analysis of respondent knowledge, the majority of the population has good knowledge, with a percentage of 62.1%. According to the attitude description, it is found that the majority of the population holds a positive attitude, accounting for 61.3%. The researcher's recommendation is to conduct further studies with a broader scope or in different locations to obtain more representative data related to pre-hospital handling of traffic accident victims.

Keyword: Traffic Accidents 1; Pre-Hospital 2; Knowledge 3; Attitude 4.

INTRODUCTION

Traffic accidents are one of the most common health problems in the world, resulting in numerous fatalities and material losses (Suastrawan et al., 2021). These accidents frequently occur on highways, often happening suddenly, without regard to time or place. Traffic accidents can cause victims to suffer injuries ranging from minor to severe, and in some cases, may even result in death at the scene (Rika, 2023).

Based on data obtained from the Pekanbaru City Police (Polresta Pekanbaru), there were 8 traffic accidents that occurred on Jl. Yos Sudarso between January 2024 and October 2024, resulting in 2 fatalities, 2 serious injuries, and 12 minor injuries. As of November 2024, Jl. Yos Sudarso, particularly in Muara Fajar Subdistrict, is still designated as an accident-prone area (Traffic Unit of Pekanbaru City Police, 2024).

Pre-hospital care refers to the initial management that can be provided by families, communities, or healthcare workers to emergency patients, either while still at home or before being referred to a hospital (Yuswantoro et al., 2022). Knowledge of first aid for traffic accidents should be possessed by all members of society, as healthcare workers are not always

immediately present at the scene when an accident occurs. Communities, especially those living along highways, must have the ability to provide first aid when a traffic accident happens, before the victims are taken to the hospital (Widiastuti & Adiputra, 2022). It is expected that community members can provide first aid in the event of a traffic accident, as such incidents have an impact on the surrounding environment. If the public is able to administer first aid to traffic accident victims, it is hoped that the rates of disability and death can be reduced (Rahman et al., 2022). Knowledge also influences a person's attitude the better one's knowledge and attitude, the better their behavior will be (Asdiwinata et al., 2019).

In reality, the public often remains passive, merely watching accident victims while waiting for the authorities to arrive, due to fear of possible legal consequences. This attitude can contribute to an increase in the number of fatalities (Yunus et al., 2023). In addition, the first aid provided by the community often involves hastily moving traffic accident victims. A lack of proper understanding of first aid among the public can have serious consequences for the victims, ranging from worsening injuries to death, as well as resulting in material losses (Rahman et al., 2022).

A preliminary study conducted on November 11, 2024, on Jl. Yos Sudarso, Muara Fajar Subdistrict, through interviews with 10 community members, revealed that 6 people did not understand how to perform first aid for accident victims. Meanwhile, 3 people understood how to provide first aid in traffic accidents but were unwilling to do so. According to information from another respondent, no training has yet been provided to the community regarding first aid for traffic accident victims.

To prevent the adverse effects of such accidents, nurses can play an important role by providing education to the community about first aid for traffic accidents. This aims to improve public knowledge and attitudes so that when witnessing or being directly present at the scene of an accident, community members are able to provide first aid to the victims.

RESEARCH METHODS

This research is a quantitative study using a descriptive-analytic design. Descriptive-analytic research is an approach used to obtain in-depth and meaningful data. The study was conducted among residents of RW 01 Muara Fajar. The research was carried out from September 2024 to February 2025.

The population in this study consisted of 180 residents of RW 01 Muara Fajar. The sample size was determined using the Slovin formula, resulting in a required sample of 124 community members. The sampling technique used was cluster random sampling (CRS), which is a sampling method based on groups or regions. This technique is applied when the subjects or objects are widely distributed across a certain area by first forming several clusters or regions, and then randomly selecting a number of clusters or groups of individuals from each cluster. In this study two instruments were used a knowledge questionnaire and an attitude questionnaire. The knowledge questionnaire consisted of 8 statements, including 4 positive and 4 negative statements. For positive statements, the response "Correct" was scored as 1 and "Incorrect" as 0. Conversely, for negative statements, the response "Correct" was scored as 0 and "Incorrect" as 1. The total score obtained from the responses was then summed up, compared with the maximum possible score, and multiplied by 100%.

Next, each respondent's score was categorized as follows: a good level if the percentage was between 75%–100%, a fair level if the percentage was between 59%–74%, and a low level if the percentage was below 59%. Meanwhile, the attitude questionnaire consisted of 11

statements, including 6 positive and 5 negative statements. Positive statements were rated as follows: Strongly Agree (SA) = 4, Agree (A) = 3, Disagree (D) = 2, and Strongly Disagree (SD) = 1. Negative statements were rated as follows: Strongly Agree (SA) = 1, Agree (A) = 2, Disagree (D) = 3, and Strongly Disagree (SD) = 4. The classification of attitudes was determined based on the median score, where a positive attitude was defined as a score \geq the median, and a negative attitude was defined as a score $<$ the median.

RESEARCH RESULTS

Based on the research conducted in January 2025 among the residents of RW 01 Muara Fajar, with a sample of 124 community members, the results are as follows:

Table 1. Frequency Distribution Based on Respondents' Characteristics

Variable	Frequency	Percentage (%)
Age		
Late Adolescence (17-25 years)	16	12.9
Early Adulthood (26–35 years)	49	39.5
Middle Adulthood (36–45 years)	43	34.7
Late Adulthood (46–55 years)	14	11.3
Elderly (>56 years)	2	1.6
Total	124	100
Gender		
Male	52	41.9
Female	72	58.1
Total	124	100
Education		
Junior High School	9	7.3
Senior High School	108	87.1
Bachelor's Degree	7	5.6
Total	124	100
Occupation		
Laborer	32	25.8
Gojek Driver	8	6.5
Teacher	4	3.2
Housewife	27	21.8
Unemployed	4	3.2
Trader	17	13.7
Farmer	25	20.2
Entrepreneur	7	5.6
Total	124	100
Source of Information About Pre-Hospital Care		
Yes	23	18.5
Total	124	100

(Source: Primary Data, 2025)

Based on the table above, the frequency distribution of respondent characteristics in RW 01 Muara Fajar, with a total sample of 124 people, shows that the majority of respondents are aged 26–35 years (39.5%). In terms of gender, most respondents are female (58.1%). Regarding education, the majority of respondents are high school graduates (87.1%). In terms of occupation, most respondents work as laborers (25.8%). Furthermore, in relation to pre-hospital information, the majority of respondents (81.5%) did not receive any pre-hospital information.

Table 2. Frequency Distribution of Respondents' Level of Knowledge Regarding Pre-Hospital Care

Knowledge Level	Frequency	Percentage (%)
Low	39	31.5
Moderate	8	6.5
Good	77	62.1
Total	124	100

(Source: Primary Data, 2025)

Based on the table above, the frequency distribution analysis of knowledge shows that the majority of respondents have good knowledge regarding pre-hospital management, accounting for 62.1%.

Table 3. Frequency Distribution of Respondents' Attitudes Toward Pre-Hospital Management

Attitude	Frequency	Percentage (%)
Negative	48	38.7
Positive	76	61.3
Total	124	100

(Source: Primary Data, 2025)

Based on the table above, the frequency distribution analysis of attitudes shows that the majority of respondents have a positive attitude, accounting for 61.3%.

DISCUSSION

Age

Based on the frequency distribution of respondent characteristics in RW 01 Muara Fajar with a total sample of 124 people, the majority of respondents were in the early adult age range of 26–35 years, accounting for 39.5%. This finding is consistent with the study by Pratama (2024), titled “Knowledge and Attitude in First Aid for Traffic Accident,” which showed that out of 49 respondents, nearly half were in the 26–35 year age range, totaling 15 respondents (30.6%).

Based on the researcher's assumption, age influences the ability to provide first aid to accident victims. The older the individual, the more mature their thinking becomes, accompanied by a higher sense of care and empathy. Individuals aged 26–35 years are considered adults who possess greater knowledge and experience, as well as broader access to information regarding first aid in accidents. At this age, people also tend to have better awareness of the dangers of traffic accidents.

Gender

Based on the frequency distribution of respondent characteristics in RW 01 Muara Fajar, with a total of 124 participants, the majority of respondents were female (58.1%). This finding is consistent with the study by Septiyana & Muhaji (2024), titled “The Relationship Between Knowledge and Public Attitudes in Providing First Aid for Traffic Accidents in the Godean Police Area,” which showed that more than half of the respondents were female, totaling 62 people (62.6%), while nearly half were male, totaling 37 people (37.4%).

According to the researcher’s assumption, both men and women have an equal level of knowledge, as access to education and information is not limited to men but is equally available to both genders. Therefore, when the information and knowledge obtained are adequate, the level of knowledge between men and women tends to be relatively similar. In addition, women generally possess a higher sense of empathy and care, which motivates them to demonstrate positive attitudes when accidents occur. Meanwhile, men tend to be more courageous in facing emergency situations and often have more experience in handling such conditions.

Education

Based on the frequency distribution of respondent characteristics in RW 01 Muara Fajar, with a total of 124 participants, the majority of respondents were high school graduates (87.1%). This finding is consistent with the study conducted by Rahman (2021), titled “The Relationship Between Public Knowledge and Attitudes Toward First Aid for Traffic Accident Victims on Basuki Rahmat Street,” which stated that nearly half of the respondents had a high school education level, totaling 92 respondents (46.5%). Similarly, the study by Septiyana & Muhaji (2024) found that most respondents had a senior high school or equivalent education (72 respondents, 72.7%), while a smaller proportion had a diploma-level education (13 respondents, 13.1%).

Based on the researcher’s assumption, education influences people’s way of thinking and the breadth of their knowledge regarding the importance of providing first aid to traffic accident victims. Most respondents with a senior high school or equivalent education tend to show lower levels of positive attitude toward first aid due to limited knowledge about first aid information for traffic accident victims. A lack of knowledge and public awareness campaigns may also affect people’s attitudes toward providing first aid.

Occupation

Based on the frequency distribution of respondent characteristics in RW 01 Muara Fajar, with a total of 124 participants, the majority of respondents worked as laborers (25.8%). This finding is consistent with the study by Fitriana (2022), which found that a small proportion of respondents were laborers, totaling 32 people (26.5%). Occupation contributes to people’s level of knowledge because those who are employed tend to have broader experiences compared to those who are not working. Individuals usually take actions based on their experiences someone with prior experience is more likely to act according to familiar procedures and feel more confident in their actions.

Based on the researcher’s assumption, occupation influences the level of knowledge and attitude toward providing first aid in accidents. Being a laborer is a type of work that carries a risk of injury, either to oneself or to others. Therefore, through work experience, individuals can gain additional knowledge and develop a better attitude in taking appropriate first aid actions during accidents.

Source of Information About Pre-Hospital Care

Based on the frequency distribution of respondent characteristics in RW 01 Muara Fajar, with a total of 124 participants, the majority of respondents (81.5%) did not receive any information regarding pre-hospital management. Information about first aid in traffic accidents

can be obtained through seminars or outreach programs conducted by healthcare professionals from hospitals, community health centers (puskesmas), or traffic safety officers. In addition, information about pre-hospital care can also be accessed through the internet.

Based on the researcher's assumption, the lack of pre-hospital information among the community is influenced by insufficient socialization or outreach regarding pre-hospital care from the local community health center (puskesmas). It is also affected by the low interest of community members in seeking information through the internet.

Public Knowledge Related to Pre-Hospital Management of Traffic Accident Victims

Based on the frequency distribution of knowledge levels, the majority of respondents had good knowledge regarding pre-hospital management, accounting for 62.1%. This finding is consistent with the study by Hidayat (2023), titled "Overview of Public Knowledge on First Aid in Traffic Accidents," which showed that the majority of respondents had good knowledge of first aid, with a proportion of 89.0%.

According to the researcher's assumption, good knowledge of first aid for accident victims should be possessed by every individual, as a person's knowledge can influence the victim's outcome and potentially save lives. This is supported by the results of the questionnaire, particularly statement number two: "First aid is only temporary, therefore it is necessary to call an ambulance and healthcare personnel immediately." The majority of respondents (111 people) answered "True," indicating that the community has a good level of knowledge regarding pre-hospital first aid.

Public Attitudes Related to Pre-Hospital Management of Traffic Accident Victims

Based on the frequency distribution analysis of attitudes, the majority of respondents showed a positive attitude, accounting for 61.3%. This finding is consistent with the study conducted by Herlinawati (2020), titled "The Relationship Between Knowledge and Attitudes Toward First Aid," which found that 62.7% of respondents demonstrated a positive attitude.

The researcher assumes that the public's attitude toward providing first aid to traffic accident victims is still minimal or lacking. This is evident from the fact that, when traffic accidents occur, many people merely stand around the victim to observe rather than immediately offering help. This hesitation is often due to fear of legal consequences, fear of dealing with the victim's family or community, and uncertainty about what actions to take. However, some individuals prioritize humanity and have the courage to provide assistance to accident victims. Knowledge and attitude are closely related to first aid in traffic accidents good knowledge tends to result in a positive attitude. Therefore, providing education, counseling, and simulations of basic life support by healthcare professionals is essential. Such efforts aim to ensure that the community gains proper knowledge and information that can be applied effectively in real-life situations in the future.

CONCLUSION

Based on the frequency distribution of respondent characteristics in RW 01 Muara Fajar, with a total of 124 participants, the majority of respondents were aged 26–35 years (39.5%). In terms of gender, most were female (58.1%). Regarding education, the majority were high school graduates (87.1%). In terms of occupation, most respondents worked as laborers (25.8%). Furthermore, the majority of respondents (81.5%) did not receive any information regarding pre-hospital management.

Based on the analysis, the majority of respondents had good knowledge regarding pre-hospital management, accounting for 62.1%. Based on the attitude overview, the majority of respondents showed a positive attitude, accounting for 61.3%.

REFERENCES

1. Asdiwinata, I. N., Yundari, A. I. D. H., & Widnyana, I. P. A. (2019). Overview of the Community's Level of Knowledge Regarding First Aid in Traffic Accidents at Banjar Buagan, Pemecutan Kelod Village. *Bali Medika Journal*, 6(1), 58–70. <https://doi.org/10.36376/bmj.v6i1.67>
1. Handayani, E. E., Nastiti, D., Ramdaniati, S. N., Himmawan, L. S., & Somantri, U. W. (2024). Factors Related to the Incidence of Occupational Accidents Among Saw Workers in Menes District, Pandeglang Regency. *Jurnal Medika & Sains [J-MedSains]*, 4(1), 43–44. <https://doi.org/10.30653/medsains.v4i1.983>
2. Lubis, R., Husada Karya Jaya, A., Kunci, K., Pemahaman, T., Ojek Online, D., & Pertama, P. (2023). Level of Understanding of Online Motorcycle Taxi Drivers Regarding First Aid in Traffic Accidents at Kalibaru Barat RT 05 RW 05, North Jakarta. *Community Health Service Journal of Husada Karya Jaya Nursing Academy*, 5(1), 13–16.
3. Mubalus, S. F. E. (2023). Analysis of the Factors Causing Traffic Accidents in Sorong Regency and Their Mitigation. *Sosced*, 6(1), 182–197.
4. Pangandaheng, T. (2020). Relationship Between Knowledge Level and Nurses' Attitude Toward Basic Life Support Management. *PANNMED Scientific Journal (Pharmacist, Analyst, Nurse, Nutrition, Midwifery, Environment, Dentist)*, 15(2), 283–288. <https://doi.org/10.36911/pannmed.v15i2.763>
5. Rahman, I., Su, H. M., Hutomo, W. M. P., & Yulianto, K. D. (2022). Relationship Between Community Knowledge and Attitude Toward First Aid for Traffic Accident Victims on Basuki Rahmat Street. *Journal of Relationship Between Community Knowledge and Attitude Toward First Aid for Traffic Accident Victims on Basuki Rahmat Street*, 4, 30–35.
6. Rika, W. (2023). Relationship Between Knowledge Level and Attitude of the General Public About First Aid in Traffic Accidents in Sukawati Village. *AT-TAWASSUTH: Journal of Islamic Economics*, VIII(1), 1– 19.
7. Satlantas Polresta Pekanbaru. (2024). Pekanbaru City Police Traffic Unit Holds Zebra Lancang Kuning 2024 Operation. *Satlantas Polresta Pekanbaru*. <https://detakindonesia.co.id/read/detail/11791/satlantas-polresta-pekanbaru-gelar-operasi-zebra-lancang-kuning-2024>
8. Setiawan, R. A., & Ramadhan, G. E. (2022). Education on First Aid for Accidents for Teenagers. *Journal of Community Service and Health Science*, 1(2), 30–33.
9. Suastrawan, P. G. P., Saputra, I. K., & Yanti, N. P. E. D. (2021). Relationship Between First Aid Knowledge and Motivation to Help Traffic Accident Victims Among Communities on Prof. Dr. Ida Bagus Mantra Street, Bali. *Coping: Community of Publishing in Nursing*, 9(2), 236. <https://doi.org/10.24843/coping.2021.v09.i02.p15>
10. Wandira, D. F. (2017). *University of Medan Area, 2017*. Thesis, University of Medan Area, 58, 25. <https://repositori.uma.ac.id/jspui/bitstream/123456789/8258/1/138510005.pdf>
11. World Health Organization. (2023). *Road traffic injuries*. World Health Organization. <https://www.who.int/news-room/fact-sheets/detail/road-traffic-injuries>
12. Widiastuti, N. K. P., & Adiputra, I. M. S. (2022). Overview of Students' Knowledge Level Regarding First Aid in Accidents at Senior High Schools. *Jurnal Akademika*

- Baiturrahim Jambi*, 11(1), 23. <https://doi.org/10.36565/jab.v11i1.409>
13. Yunus, P., Damansyah, H., Retni, A., & Salam, A. Y. (2023). Relationship Between Attitude and Motivation in Providing First Aid in Accident Cases Among Students of SMAN 2 Limboto, Gorontalo Regency. *NAJ: Nursing Applied Journal*, 1(4), 15–26. <https://doi.org/10.57213/naj.v1i4.96>
 14. Yuswantoro, E., Niningasih, R., & Christiani, M. (2022). A Study of Pre-Hospital Stroke Management in Families. *Jurnal Keperawatan Terapan*, 8(1), 82–88.