



Original Research

The effect of Knowledge and Attitude Of Ambulance Driver for Improving Defensive Driving Behavior

Zamzam Fahlapi¹, Chanif Chanif¹, Dwi Nur Rahmantika Puji Safitri¹

¹ Universitas Muhammadiyah Semarang, Indonesia

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Abstract

Defensive driving is a safe driving technique and applies all means to avoid or avoid accidents. Ambulance drivers to master the implementation of defensive driving there are many factors, one of which is knowledge and attitude. The objective of this research is to determine the relationship between knowledge and attitudes with the practice of pre-hospital ambulance drivers regarding defensive driving. This research uses the analytical survey method with a cross-sectional approach with a total sampling technique of 46 ambulance drivers and analyzed using Spearman Rank. Knowledge with a p-value of 0.032 and a correlation coefficient of 0.317*. Attitude with a p-value of 0.019 and a correlation coefficient of 0.345*. There is a significant relationship between knowledge and the practice of defensive driving for ambulance drivers and the higher the knowledge, the better the practice. There is a relationship between attitudes and the practice of defensive driving for ambulance drivers and the more supportive the attitude, the better the practice will be. Further researchers are advised to examine the factors that influence the behavior of ambulance drivers regarding defensive driving.

INTRODUCTION

An ambulance is a differently designed vehicle for the transportation or delivery of the injured to the appropriate medical institution. Ambulance drivers have the right to run through red lights, are allowed to speed above the maximum limit, and ignore traffic rules after turning on the emergency signal. So that the driver who drives the ambulance must have special knowledge and skills to drive the ambulance, even though it is required to be fast, but must not make mistakes that could threaten the safety of the ambulance team and patients. Ambulance drivers must have

a valid driver's license and must attend a training programme.¹ Driving an emergency vehicle is a dangerous situation on any trip. Driving an ambulance must turn on emergency lights and sirens so that all motorists can quickly recognize an ambulance to pull over immediately to avoid an accident.²

There were 1,627,217 ambulance accident incidents in Taiwan during the investigation period, with 715 ambulance accident incidents killing eight people and injuring 1,844 patients in 24 hours.³ Incidences of ambulance accidents also exist in Indonesia, one of which was an accident on the

Corresponding author:

Dwi Nur Rahmantika Puji Safitri

rahmantika@unimus.ac.id

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Pejagan-Pemalang toll road where five people died due to an ambulance collision with a truck. Another accident was on the road heading from Makassar City to Bulukumba Regency, an ambulance carrying Covid-19 patients hit a truck. In Semarang, there was also an ambulance accident which left two victims lightly injured.

The main factors that influence the incidence of traffic accidents such as road factors, environment or weather, vehicle and human factors themselves. This human factor can be intentional or unintentional, due to a lack of knowledge about driving safety or can be called defensive driving.⁴ Defensive driving is a safe driving technique and applies all means to avoid or avoid accidents.

The results of the Semarang City Government Bus driver survey, the more defensive driving knowledge one has, the better the application of defensive driving. However, drivers who have low knowledge about defensive driving, the application is not quite right. Defensive driving there are relevant factors, such as driver knowledge, attitude/behavior, vehicle damage, point of view, and the supervisor's function in defensive.⁵

Knowledge and attitude when driving is very necessary because on average drivers experience near misses or accidents, out of ten drivers 70% have had accidents, and 90% started with near misses from the accident. This happens because the driver's behavior is dangerous (unsafe act) as well as bad conditions (unsafe condition).⁶ When an ambulance accident incident occurs, it will disrupt the patient evacuation process and can threaten the safety of patients, ambulance teams, and other road drivers.⁷ Therefore researchers are interested in conducting a study entitled "Relationship of Knowledge and Attitudes with the Practice of Pre-Hospital Ambulance Drivers on Defensive driving".

METHODS

Design

The research design used was an analytic survey design, namely the researcher made direct observations at the pre-hospital ambulance headquarters. The cross-sectional approach is a survey of the population at the same time.

Sample

The population in this study were all ambulance drivers in the city of Semarang consisting of Great Ambulance and Standby Ambulance with 46 drivers. Sampling technique by means of total sampling. By driver criteria:

Inclusion criteria

1. Still active as an ambulance driver
2. Willing to be a respondent
3. Work experience > 1 year

Exclusion criteria

1. Not active or on leave
2. Sudden pain
3. Work experience <1 year

This study uses univariate analysis using descriptive methods, there are three variables in this study, namely knowledge variables, attitudes as independent variables and the practice of ambulance drivers regarding defensive driving as the dependent variable and this bivariate analysis is used to determine the relationship between knowledge and attitudes with the practice of ambulance drivers about defensive driving. The normality test used the Shapiro-Wilk. To look for a relationship, a bivariate analysis was performed using the Spearman rho test because the data distribution was not normal.

RESULTS

Based on the results of data collection, it was found that the most age characteristics of the respondents were in the early adult

age group, which ranged from 26-35 years, namely 23 respondents (50.0%) and the least were in the late adolescent age group, with a range of 17-25 years, only one respondent (2.2%).

Table 1
Driver Defensive Driving Component (n = 46)

	f	%
Knowledge		
Good	43	93,5
Enough	3	6,5
Attitude		
Support	32	67,4
Unsupported	15	32,6
Practice		
Good	42	91,3
Bad	4	8,7

The frequency distribution of knowledge Most of the ambulance drivers have good knowledge namely 43 respondents (93.5%), the attitude of 32 driver (67.4%) supported the defensive driving and good at practice around 42 respondents (91.3%).

Table 2
Ambulance Driver Knowledge (n = 46)

Variable	r	p
Knowledge to practice	0.317	0.032
Attitude to Practice	0.345	0.019

Based on the results of the correlation test, a p-value of 0.032 (≤ 0.05) was obtained, which means that there is a significant relationship between the knowledge and attitude with practice of defensive driving.

DISCUSSION

Huclok's theory states that the level of maturity and strength at work is influenced by age.⁸ Age has the most dominant influence on knowledge level.⁹ Based on the level of education showed the results of the characteristics of the education level of the most respondents, namely high school graduates/equivalent. Education is one of several factors that can affect the level of knowledge. The higher the level of education, the higher the level of knowledge.⁸ The higher the level of

individual education, the better the mindset is in capturing information that can influence individual behavior.

Characteristics based on length of work in the results obtained most respondents ≥ 3 years. The experience experienced by someone in their environment while working, the longer the time they work, the more their knowledge increases.¹¹ There is a relationship between driving time and safety riding/defensive driving behavior. Characteristics of training (defensive driving) showed that most of the training characteristics had attended 31 people (67.4%) and had never participated in training 15 people (32.6%).¹²

The Indonesia Defensive Driving Center (IDDC) explains that driving properly, safely and responsibly is related to training because it can affect driving skills.⁵ The results of previous research conducted by Sundstrom and Albertsson show that after being given training the driver is able to adjust the speed and know the risks and correct driving behavior.¹³ Based on this theory, eligible aspect to become drivers are early adulthood, a minimum education of high school/equivalent, work experience ≥ 3 years and attending training.

The high level of knowledge of ambulance drivers is influenced by the training they have attended and work experience. This research is in accordance with the theory which states that the factors that influence the level of knowledge are culture and economy, education, environment, experience, age, and information. There are several factors such education level, work environment, and experience, which are factors influencing the high level of driver knowledge.

The attitude of being very supportive of ambulance drivers is influenced by education, in this formal and non-formal education, for example education from parents and religion so that drivers have a sense of empathy and feel guilty when carrying emergency patients to die on the

road. The formation of attitudes and factors that influence a person can be determined by personality, intelligence, and interests.¹⁴ Education and knowledge influence people's attitudes.¹⁵

Ambulance drivers have the ability to practice defensive driving influenced by training and knowledge. The level of knowledge, attitude and training can influence the practice of safety driving/defensive driving.¹⁶ The results of this study are also similar to Lawrence Green's theory of behavioral factors including knowledge factors, attitude factors, actions and beliefs.¹⁷

The direction of the relationship is positive, meaning that the better the knowledge, the better the ambulance driver's practice of defensive driving. Significant relationship between driver knowledge and defensive driving/safety driving behavior.^{5,10} A person's knowledge becomes part of the main factors when taking action, right or wrong the action taken by a person is the benefit of knowledge, so that the continuity of individual behavior in taking action will be better because of high knowledge.¹⁸ When a driver drives with low knowledge it will result in a wrong perception of traffic conditions.¹⁹

Drivers who have high knowledge tend to have good defensive driving behavior because they have a supportive attitude and understand procedures. Meanwhile, drivers with low knowledge tend not to pay attention to matters of driving safety related to defensive driving practices.¹⁶ Therefore it can be concluded that the higher the driver's knowledge will have an impact on behavior when driving a vehicle. Where it is most likely that a driver with good knowledge will perform a more careful and safe driving action than a driver with less knowledge.

Based on the analysis of the data in this study, the results showed relationship between attitude and defensive driving practices. The direction of the relationship

is positive, meaning that the more supportive the attitude, the better the ambulance driver's practice of defensive driving. attitudes and defensive have relation with driving/safety driving practices. Attitude is more likely related to what will be done while riding.^{5,6}

The results of this study are also similar other result that a person's practice is based on a response that forms a real action or a person's attitude in acting, a person's high or low level of knowledge influences a person's good or bad attitude.¹⁷ Drivers who have a supportive attitude in driving will be more likely to behave well because they can anticipate and behave when things are unexpected. Drivers who have an unsupportive attitude can lead to poor defensive driving or safety driving practices, so that traffic accidents can occur.¹⁶

Therefore a good action or attitude of the driver is needed in the practice of defensive driving because safe driving requires fast and precise action so that the driver can be more responsive to his surroundings and prevent traffic accidents.

CONCLUSION

Knowledge of defensive driving pre-hospital ambulance drivers are mostly knowledgeable. Most of the attitudes of pre-hospital ambulance drivers regarding defensive driving were very supportive. Defensive driving practice for pre-hospital ambulance drivers is mostly good practice. There is a significant relationship between knowledge and the defensive driving practice of ambulance. There is a significant relationship between attitudes and defensive driving practices of ambulance drivers.

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