

Relationship of Knowledge With Safety Riding Behavior in Class XII, Students of Waringinkurung Senior High School, 2020

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ABSTRACT

Safety Riding behavior is an effort made to minimize the level of danger and maximize safety in driving, in order to create a condition that does not endanger other riders and is aware of possible dangers that can occur around us and understands how to prevent and overcome them. The factors that affect Safety Riding include Knowledge, Perception, Sim ownership, support from others, motivation, age, and education level. Based on a preliminary survey conducted on 30 students, namely by filling out a questionnaire regarding the knowledge of safe driving safety, it was found that 19 students had poor knowledge and 11 students had good knowledge. This study aims to determine the Relationship of Knowledge and Safety Riding Behavior in Students Of Waringinkurung Senior High School, 2020. The research method used is quantitative with cross sectional research techniques. To obtain data as much as 114 respondents was done by filling out a questionnaire via google form with simple random sampling technique. The result is that 66% of unsafe behaviors were carried out by students with poor knowledge and only 29.7% of unsafe behaviors were carried out by students with good knowledge. Furthermore, 70.3% of safe behavior was carried out by students with good knowledge and only 34% of safe behavior was carried out by students with poor knowledge. The results of the bivariate analysis statistical test obtained P value 0.001. The conclusion of this research is a significant relationship between knowledge and safety riding behavior. It is hoped that the school can work together with the Cilegon Police to provide socialization to provide socialization to students about the importance of safety riding and make rules for students to bring STNK and SIM when driving to school.

Keywords: Knowledge, Safety Riding Behavior, Safety Riding

1. INTRODUCTION

Every year 1.35 million people die due to traffic accidents around the world, meaning that every 24 seconds one person loses his life. As many as 72% of these traffic accidents occurred in Indonesia. WHO added that in just three years the death toll on the highway increased by 100,000 people. Now traffic accidents are the main killer of humans with an age range of 5 to 29 years [1].

According to Korlantas data, the number of traffic accidents during 2019 in Indonesia there were 109,000 accidents that killed 30,000 people [2]. Korlantas Polri recorded 210 traffic accidents until February 25, 2020. The accident was dominated by motorbikes, with 144 incidents. In addition, traffic accidents also often occur in buses and trucks, with 18 incidents each [3].

Data obtained from Dirlantas POLDA Banten, 649 lives were lost due to traffic accidents in Banten throughout 2019. Based on BPTD data from the police, 70 percent of

accidents were caused by motorbikes. Based on data released by the Banten Regional Police in 2018, from January to October, 197 accidents involved school children aged 11 to 17 who were of junior and senior high school age (Junior High School and Senior High School) [4].

Based on data from Dirlantas Polda Banten, the total traffic offenders who were prosecuted during Operation Patuh Kalimaya 2019 reached 19,471. There is a very significant difference with 2018, with an increase of 7,152 numbers of traffic violators. As for the number of traffic offenders caught by raids by each level of the police, namely, Banten Police, 2,164 offenders, Serang Police for 2,078 offenders and Pandeglang Police for 1,472 offenders. Then, Lebak Polres 3,708 violators, Cilegon Police 2,630 violators, Tangerang Police 4,978 violators and City Serang Police 2,441 violators. The most common violations committed by two-wheeled riders were not wearing helmets with SNI standard, totaling 6,486 violators, followed by fighting against the current of 3,777

offenders and using cellphones when driving 37 violators [4].

According to Hurlock, adolescence age limit, early adolescence lasts from the age of 13-16 years or 17 years, and the end of adolescence starts from the age of 16 or 17 years to 18 years, which is legal maturity [5]. Based on the Regulation of the Head of the National Police of the Republic of Indonesia Number 9 of 2012 concerning Article 25 of the Driving License, the minimum age to take the SIM C registration exam is 17 years. Test participants are declared to have passed the SIM Theory Exam, if they have good knowledge of driving theory by answering correctly at least 70% (seventy percent) of all the questions tested [6]. With knowledge of shallow driving often lead to fatal accidents. This lack of knowledge and experience makes teen drivers less responsive to dangerous situations, which can lead to road accidents [7].

The factors that affect safety riding include knowledge, behavior, perceptions, possession of a driving license and the support of others. Knowledge is all what we know about a particular object. Behavior is the result of all kinds of experiences and human interactions with the environment which are manifested in the form of knowledge and actions. Perception is the individual's process of interpreting, organizing and giving meaning to the stimulus that comes from the environment in which the individual is located which is the result of the learning process and experience. Facilities and infrastructure or facilities for safe driving behavior as well as the characteristics of motorists driving a motorized vehicle must have a driving license (SIM C), support for motorized vehicle facilities, and traffic regulations as well as support from others to carry out safety behaviors driving [8].

From the results of research conducted by Colle, states that there is a relationship between knowledge and safety riding behavior where the proportion of good safety riding behavior is higher in respondents who have sufficient knowledge of safety riding behavior [9]. Furthermore, research conducted by Azizah, states that there is a relationship between knowledge, attitudes, perceptions, and peer roles with safety riding behavior in FMIPA UNNES students class of 2008-2015 [10]. Furthermore, research conducted by Alam states that there is a relationship between knowledge, attitudes, driver's license ownership, family support, and motivation with safety riding behavior among students of Senior High School number 102nd East Jakarta in 2018 [11]. Based on the above, it shows that the factor most related to safety riding behavior is the knowledge factor.

Waringinkurung Senior High School has 830 students riding motorbikes every day. Based on a preliminary study obtained from the student section (BK), it was found that from January to March 2020, there were 7 accidents in students. Meanwhile, during 2019 there were 9 accidents, which decreased from 2018 with 11 accidents. From the results of the interview with the school security guard, it was found that the impact of this accident made students absent from school. In general, the accidents that occur are dominated by driver negligence, such as driving at high speed and turning without turning on the turn signal.

Based on a preliminary study obtained from the student section (BK), the results obtained from January to March 2020, there were 7 accidents occurring in students. Meanwhile, throughout 2019 there were 9 accidents, which decreased from 2018 with 11 accidents.

Based on the preliminary survey conducted on 30 students of class XII, it was found that 19 students had poor knowledge and 11 students had good knowledge.

2. METHODS

This type of research is an observational study with a cross-sectional research design that aims to determine the relationship between knowledge and safety riding behavior in Students of Waringinkurung Senior High School in year of 2020. Primary Data Collection Is Through A questionnaire in the form of a Google Form which will be distributed to students in the form of links, while secondary data was obtained from the academic field of Waringinkurung Senior High School regarding the number of students in Waringinkurung Senior High School in year of 2020.

The population in this study were all 12th grade of Waringinkurung Senior High School in year of 2020, totaling 219 students with a sample required of 114 people. The sampling technique used the simple random sampling technique with inclusion criteria, namely all selected students who were willing to fill out the questionnaire and those who were not selected to fill out the questionnaire during validation. While the exclusion criteria were students who refused to fill out the questionnaire and who were selected to fill out the questionnaire during validation.

3. RESULTS

3.1. Univariate Analysis

Tabel 1. Frequency Distribution of Knowledge and Safety Riding Behavior in Studentsgrade of Waringinkurung Senior High School in year of 2020

Variabel		Amount	Persentase (%)
		114	100%
Dependent			
Behavior	Poor	50	43.9
	Good	64	56.1
Independen			
Safety Riding Behavior	Unsafe	52	45.6
	Safe	62	54.4

Source: Primary Data, August 2020

Based on table 1, it can be seen that as many as 50 respondents (43.9%) have poor knowledge of safety riding behavior, and as many as 64 respondents (56.1%) have good knowledge of safety riding behavior. As many as 52 respondents (45.6%) had unsafe safety riding behavior, and as many as 62 respondents (54.4%) have a safe safety riding behavior.

3.2. Bivariate Analysis

Tabel 2. Relationship between Knowledge and Safety Riding Behavior in Students of Senior High School Waringinkurung in year of 2020

Variabel Independen	Category	Safety Riding Behavior				Amount		P-Value	PR (95% CI)
		Unsafe		Safe		N	%		
		N	%	N	%				
Knowledge	Poor	33	66%	17	34%	50	100%	0.001	2.223 (1.452-3.405)
	Good	19	29.7%	45	70.3%	64	100%		

Source: Primary Data, August 2020

Based on table 4.3, it can be seen that 66% of unsafe behavior were carried out by students with poor knowledge and only 29.7% of unsafe behavior were carried out by students with good knowledge. Furthermore, 70.3% of safe behavior was carried out by students with good knowledge and only 34% of safe behavior was carried out by students with poor knowledge. The results of the bivariate analysis statistical test obtained P value 0.000 <0.05, which means that there is a significant relationship between knowledge and safety riding behavior. From this statistical test it is also known that the value of PR (Prevalence ratio) = 4.598 with 95% CI = (2.079-10.167) means that respondents who have poor knowledge are 4.598 more at risk of unsafe driving behavior than respondents who behave well.

4. DISCUSSIONS

4.1. Description of Knowledge in Students of Senior High School Waringinkurung in year of 2020

The results showed that as many as 50 respondents (43.9%) had poor knowledge about safety riding behavior, and as many as 64 respondents (56.1%) had good knowledge about safety riding behavior.

The results of this study are in accordance with the results of research conducted by Perwitaningsih on Public Health Students of Udinus Semarang in 2013, namely the highest proportion of respondents who have good knowledge of 64.2% [12].

Based on Law Number 22 of 2009, one of the requirements for obtaining a motorcycle driving license is to take an exam to get a SIM C, one of which is a theoretical examination of knowledge about safe driving behavior (safety riding) including knowledge of traffic signs, road markings, traffic signaling devices, and traffic movements as well as Driver Skills [6]

Based on the research results, it was found that the highest proportion was obtained by students, namely students with good knowledge of safety riding behavior. The results of this study indicate that most of the students already have good knowledge about safety riding. This is because based on the results of interviews with several students, they said they received information about driving safety from outside of school such as information from the socialization of driving safety on television, and some received information through games or online racing

games. Of the answers to the questionnaire the most correct were the questions regarding the minimum age to have a SIM C as much as 99.1%, meaning that the signs were prohibited from stopping as much as 96.5%, and signs prohibited from turning right as much as 93%. Some of these questions are questions with the most correct scores, including about traffic signs, this is because these signs are signs that are often seen on public roads.

While the results of the questionnaire with the most questions answered wrongly were students who did not know the cause of having to turn on the vehicle lights even though it was 61.4% during the day, did not know the cause of having to reduce speed during heavy rain by 58.8%, and did not know the meaning. Mandatory walking sign to the left of this sign is 45.6%. The number of students still do not understand the meaning of the importance of safe behavior because the school has never disseminated to students about safety riding behavior.

Therefore, the school is advised to cooperate with the Cilegon Police to provide socialization to students about safety riding so that they can increase students' knowledge of safety riding.

4.2. Description of Safety Riding Behavior in Student of Waringinkurung Senior High School in year of 2020

The results showed that 52 respondents (45.6%) had unsafe safety riding behavior, and 62 respondents (54.4%) had safe safety riding behaviors.

The results of this study are in accordance with the results of research conducted by Novaliana, namely the highest proportion of respondents who have safe driving behavior is 68.8% [13].

According to Law N0. 22 of 2009 concerning road traffic and transportation, which must be considered by motorists in safe driving behavior, including checking the completeness of standard motorized vehicles, namely the rearview mirror must have 2 (two) pieces on the left and right, headlights, brake lights, left-turn signal right, working horn, STNK and SIM always ready / not expired, front and back number plates, and wearing the safest Safety Riding equipment or accessories such as helmets according to SNI standards [6].

The results of the questionnaire obtained the frequency distribution of several questions on driving safety behavior, it can be seen that the lowest total score of 114 students on driving driving behavior with the number of

students who never brought a SIM while driving was 32.5%, sometimes carrying a SIM as many as 9, 6%, and only 6% often carry a SIM. Students who do not carry a driver's license when driving, do not follow Law NO. 22 of 2009, article 77 regarding a driving license, states that every person driving a motorized vehicle on the road is required to carry a driving license [6].

The large number of students who do not bring their SIM to school is because the school does not require students to carry a SIM when driving to school, and there are no driving document checks such as SIM and STNK. For this reason, the school is advised to make rules for students to show their STNK and SIM when they are in and out of the school gate. Students who do not bring their STNK and driving license should be warned by the BK teacher or homeroom teacher.

4.3. Relationship between Knowledge and Safety Riding Behavior in Student of Waringinkurung Senior High School in year of 2020

The results of the bivariate analysis showed that there was a significant relationship between knowledge and safety riding behavior in students of Waringinkurung Senior High School in year of 2020.

The results of this study are in accordance with the results of research conducted by Alam which states that there is a significant relationship between knowledge and safety riding behavior in students of Senior High School number 102 East Jakarta [11].

Safety Riding behavior is an effort made to minimize the level of danger and maximize safety in driving, in order to create a condition where we are at a point where we do not endanger other riders and are aware of the possible dangers that can occur around us and understand the prevention and countermeasures. The implementation of the above understanding is that when we drive a vehicle, we must create a premise that is concerned with and prioritizes safety, both for ourselves and for others [14].

In research conducted by colle, the proportion of good safety riding behavior was higher in respondents who had sufficient knowledge of safety riding behavior. This shows that the better the student's knowledge of safety riding behavior, the better the student's behavior will be towards safe and secure driving [9]

Based on the results of the study, it was found that 66% of unsafe behavior were carried out by students with poor knowledge and only 34% of students with good knowledge behaved unsafe. From the results of the knowledge questionnaire, it can be seen that students who answered correctly on the use of standard helmets, also answered that they always wear standard helmets when driving on the safety riding behavior questionnaire. Based on the above, it can be seen that knowledge of safety riding behavior is very influential on the practice of safety riding behavior itself.

5. CONCLUSION

1. Description of knowledge of 114 respondents to students of Waringinkurung Senior High School in year of 2020, the highest proportion is those who

have good knowledge, namely 56.1% and poor knowledge of 43.9%.

2. An overview of the safety riding behavior of 114 respondents to students of Waringinkurung Senior High School in year of 2020, the highest proportion is those who behave safely while driving, namely 54.4% and unsafe behavior at 45.6%.
3. There is a relationship between knowledge and safety riding behavior in students of Waringinkurung Senior High School in year of 2020. From the statistical test results, the PR value (Prevalence ratio) = 4.598 with 95% CI = (2,079-10,167).

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REFERENCES

- [1] WHO. (2018). Every 24 Seconds People Killed Due to Traffic Accidents
- [2] Sub-Directorate for Security and Safety (Kamsel) Korlantas Police Headquarters. (2019). 2019 Traffic Accident and Violation Documents
- [3] Korlantas Polri. (2020). Traffic accidents by vehicle type, 2020. <https://lokadata.id/data/kec-accident-lalu-lintas-menurut-jenis-kendaraan-2020-1582708742>
- [4] Sub-Directorate of Gakkum Polda Banten. (2019). 2019 Traffic Accident and Violation Documents
- [5] Hurlock, E. B. (2011) *Developmental Psychology: A Lifespan Approach*. Jakarta: Erlangga
- [6] Korlantas. (2009). Law Number 22 Year 2009. Ministry of Transportation
- [7] Siregar, R.. (2011) "Factors Related to Safe Driving Behavior in the Academic Community of UIN Syarif Hidayatullah Jakarta in 2010". Available at: <http://repository.uinjkt.ac.id/dspace/handle/123456789/3671>
- [8] Sumiyanto, A. (2014). The Influence of Individual Attitudes and Peer Behavior on Safety Riding Practices in Adolescents (Case Study of 1st Senior High School Semarang Students). *Visikes*, 2
- [9] Colle, et al. (2016). Factors Related to Safety Riding Behavior in Students of Wundulako High School, Kolaka Regency, 2016
- [10] Azizah, M.. (2016) 'Factors Related to Safety Riding Behavior in Students'
- [11] Alam, R. Dewi. (2018). Factors Related to Safe Driving Behavior Using Motorbikes in Middle School Students 12th grade 102 East Jakarta in 2018
- [12] Perwitarningsih. (2013). The Relationship Between Knowledge and Attitudes towards Safety and

Health Practices of Driving Motorcycles in Public
Health Students of Udinus Semarang in 2013

- [13] Novaliana. (2016). The Relationship between Risk Perception and Safety Behavior of Motorbike Riding in Students at Gunadarma University, Bekasi
- [14] Kusmagi, M. (2010). Happy Driving on the Highway. Bar Swadaya Group