

## Analysis Of Safety Riding Behavior Of SMKN 2 Students Reviewed From Knowledge And Attitude

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### ABSTRACT

Safety riding is an effort made to reduce the number of traffic accidents and the impact of traffic accidents. In Indonesia traffic accidents have now become the third killer after heart disease and stroke. Kediri city statistical data in 2014 figures on traffic accidents show that most of the victims were teenagers with a total of 396 children (70%) with also the majority of teenagers with a total of 293 (79%), with most types of motorcycle 561 (78%). The purpose of this study is to analyze the safety riding behavior of students of SMK 2 Kediri city in terms of knowledge and attitude. The research method used is analytic survey with a cross-sectional approach. The population and sample are students of SMK 2 Kediri city taken by cluster sampling technique. The data obtained were analyzed by binary logistic regression test. The results of the study of 103 respondents showed the age of respondents 15-17 years with the sex of most women (76%). Most stated the system of giving pocket money in a daily way and on average ranged from Rp. 10,000, - per day. Respondents as a whole did not have a driving license (SIM) and most started the first age of riding a motorcycle at the age of 10 years. The respondents' knowledge is mostly in the high category 70% and positive attitude 51.5%, but most respondents have bad behavior 73% in driving. The results of logistic regression analysis showed that there was an influence of knowledge on the Safety Riding behavior of students of SMK 2 Kediri city and there was no effect on attitudes towards Safety Riding Behavior of students of SMK 2 Kediri city. It is very important to increase students' knowledge regarding safety riding as an effort to minimize deaths due to accidents

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### I. Introduction

In the millennia era, humans are required to have high mobility, especially in urban areas. Every day, people travel from one place to another in order to fulfill their daily needs by using transportation tools that are easy to use such as motorbikes. Along with the increase in motorcycle users, the negative impact of motorcycle use also increases, which in this case is an accident. To minimize accidents, safety riding is campaigned to reduce the number of traffic accidents that continue to increase.

Safety riding is an effort made to reduce the number of traffic accidents and the impact of traffic accidents. Traffic accidents are a global problem along with a shift in patterns of diseases from infectious diseases to non-communicable diseases. Based on WHO reports (2004), currently road transportation accidents in the world have reached 1.5 million dead victims and 35 million



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injured or disabled due to traffic accidents per year. As many as 85% of victims die from accidents occur in developing countries (Russeng, 2011). Traffic accidents have now become the third killer in Indonesia after heart disease and stroke. Based on data from the Dirjen Perhubungan Darat, the incidence of traffic accidents in Indonesia continues to increase from year to year. Kediri city statistical data in 2014 figures on traffic accidents show that most of the victims were teenagers of 396 children (70%) with principals also teenagers of 293 (79%). The types of vehicles used were mostly motorbikes 561 (78%).

Based on the data above, the researchers plan to conduct a research entitled The Analysis of Riding Safety behavior of Kediri City High School Students with the Binary Logistic Regression Approach. The purpose of this study is to analyze the safety riding behavior of students of SMK 2 Kediri city in terms of knowledge and attitude

## II. Method

This study uses an observational method with a cross-sectional approach that takes samples from a population using a questionnaire as a primary data collection instrument. The sample in this study included students of SMK 2 Kediri city who were taken with cluster random sampling technique totaling 103 respondents.

The independents variable consisting of X1 (Student Knowledge about Safety Riding) and X2 (Student's Attitude about Safety Riding). Dependent variable (Y) is the Safety Behavior of Riding Students at SMK 2 Kediri city. This research instrument is a questionnaire that has been tested for validity and reliability at SMK PGRI. Statistical data analysis in this study uses Logistic Regression

## III. Results and Discussion

### Subject Characteristics

#### a. Age

Table 1. Age distribution of respondents

Age	Frequency	Percentage
15	10	9,7
16	63	61,2
17	27	26,2
18	3	2,9

Most of the respondents have a age of 16 years with a percentage of 61.2%, while the rest have ages 15, 17 and 18 years.

#### b. Sex

Table 2. Sex distribution of respondent

Sex	Frequency	Percentage
Boy	25	24,3
Girl	78	75,7

Most respondents have female sex 75.7% while males 24.3%.

c. Parents education

Table 3. Education level parents education distribution

Education level	Frequency	Percentage
SD	19	18,4
SMP	24	23,3
SMA	45	43,7
PT	15	14,6

Most respondents have parents with 43.7% of high school education (SMA) while those who have junior high school education level of 23.3%, the rest of respondents with elementary and high education levels (PT).

d. Fathers work

Table 4. Fathers work distribution

Work	Frequency	Percentage
Laborer	28	27,2
Private employees	26	25,2
Entrepreneur	31	30,1
Farmer	5	25,2
PNS/POLRI/AD	13	12,6

Table 4 shows that the majority of respondents have fathers with jobs as entrepreneurs (30.1%), while respondents with fathers work as laborers amounted to 27.2%. The rest are the father of respondents with jobs as private, PNS / POLRI / AD, and farmers.

e. Mothers Work

Table 5 Mothers work distribution

Work	Frequency	Percentage
IRT	70	68
Laborer	8	7,8
Private employees	3	2,9
Entrepreneur	16	15,5
Farmer	1	1
PNS	5	4,9

Table 5 shows that the majority of respondents have mothers with housewives (IRT) (68%), while the rest are entrepreneurs (15.5%), laborers (7.8%), civil servants (4.9%), private sector (2.9%) and farmers (1%).

f. Pocket Giving System

Table 6. Distribution of the system of giving respondents' pocket money

Pocket Giving System	Frequency	Percentage
Daily	69	67
Weekly	27	26,2
Monthly	7	6,8

Table 6 shows that most respondents were given pocket money with a daily system of 67%, while those given with a weekly system were 26.2% and monthly at 6.8%.

## g. Average Daily Percentage

Table 7. Average distribution of pocket money per day

Average of pocket money/days (Rp)	Frequency	Percentage
3 – 5	29	28,2
6 – 10	62	60,2
More than 10	12	11,6

The results of the study indicate that if the respondent is given an allowance of between Rp. 3,000 to Rp. 25,000 per day with the majority of the average giving of Rp. 3,000 to Rp. 5,000 per day. The allowance given to the respondent is an allowance used for snacks. Out of pocket money used for school work, gasoline or daily transportation

## h. Ownership of SIM C (Driving License for motorcycle)

Table 8. Distribution of ownership of SIM C respondents

Owner of SIM C	Frequency	Percentage
Do not have	103	100

Table 8 shows that all respondents do not have a driving license (SIM) for motorcycle.

## i. The early age of riding a motorcycle

Table 9. Distribution of the initial age of respondents riding a motorcycle

Early age	Frequency	Percentage
10 – 12	25	24,3
13 – 16	77	74,7
17	1	1

Table 9 shows that most respondents were at the lowest age of 10 years when riding a motorcycle for the first time. On average, respondents drove motorbikes the first time at the age of 13-16 years (74.7%), at that time the respondents were in junior high school or there were those who were in the first grade of high school. However, there was 1% of respondents who rode the first motorcycle at the age of 17, when they first bought a motorcycle by their parents.

## j. Knowledge Safety Riding

Table 10. Respondent's knowledge about safety riding

Knowledge	Frequency	Percentage
Low	31	30,1
High	72	69,9

Table 10 shows if the respondent has a high knowledge of driving as much as 70%, while the rest in the knowledge category is low 30%. Respondents' high knowledge about driving includes the respondent's knowledge of how to drive properly such as not listening to music while driving, not using cellphones and obeying traffic signs, knowledge of respondents before and after driving, including the need for vehicles to be checked regularly and routine services.

k. Respondent's attitude in Safety Riding

Table 11. Respondent's attitude in Safety Riding

Attitude	Frequency	Percentage
Negative	50	48,5
Positive	53	51,5

Table 11 shows that most respondents have a positive attitude towards 51.5% safety riding behavior, while a negative attitude is 48.5%. Attitudes are the values possessed by respondents regarding the behavior of safety riding.

l. Respondent's *Safety Riding* behavior

Table 12. Respondent's *Safety Riding* behavior

Behavior	Frequency	Percentage
Good	28	27,2
Bad	75	72,8

Table 12 shows if the respondents have behavior in the bad category 72.8% and good behavior 27.2%. Bad behavior is indicated by the overall respondents who do not have a SIM, still use their cellphones while driving, do not use PPE and often violate traffic regulations.

m. Cross tabulation age with knowledge of safety riding

Table 13. Cross tabulation age with knowledge of safety riding

Variable			Knowledge		Total
			Low	High	
Age	15	Amount	3	7	10
		Percentage	2,9%	6,8%	9,7%
	16	Amount	19	44	63
		Percentage	18,4%	42,7%	61,2%
	17	Amount	9	18	27
		Percentage	8,7%	17,5%	26,2%
	18	Amount	0	3	3
		Percentage	0,0%	2,9%	2,9%
Total		Amount	31	72	103
		Percentage total	30,1%	69,9%	100%

Table 13 shows that most of the respondents aged 16 years had a high knowledge of 42.7%.

n. Cross tabulation age with knowledge of safety riding

Tabel 14. Cross tabulation age with Attitude of safety riding

Variable			Attitude		Total
			Negative	Positive	
Age	15	Amount	8	2	10
		Percentage	7,8%	1,9%	9,7%
	16	Amount	30	33	63
		Percentage	29,1%	32,0%	61,2%
	17	Amount	11	16	27
		Percentage	10,7%	15,5%	26,2%
	18	Amount	1	2	3

		Procentage	1,0%	1,9%	2,9%
Total		Amount	50	53	103
		Procentage total	48,5%	51,5%	100%

Table 14 shows if the respondent was mostly 16 years old with a 32% positive attitude.

o. Cross tabulation age with behavior of safety riding

Table 15 Cross tabulation age with behavior of safety riding

Variable			Behavior		Total
			Good	Bad	
Age	15	Amount	6	4	10
		Procentage	5,8%	3,9%	9,7%
	16	Amount	12	51	63
		Procentage	11,7%	49,5%	61,2%
	17	Amount	9	18	27
		Procentage	8,7%	17,5%	26,2%
	18	Amount	1	2	3
		Procentage	1,0%	1,9%	2,9%
Total	Amount	28	75	103	
	Procentage total	27,2%	72,8%	100%	

Table 15 shows that the majority of respondents have 16 years of age with safety riding behavior in the bad category of 49.5%.

p. Cross tabulation of knowledge with safety riding behavior

Table 16. Cross tabulation of knowledge with safety riding behavior

Variable			Behavior		Total
			Good	Bad	
Knowledge	Low	Amount	15	16	31
		Procentage	14,6%	15,5%	30,1%
	High	Amount	13	59	72
		Procentage	12,6%	57,3%	69,9%
Total	Amount	28	75	103	
	Procentage total	27,2%	72,8%	100%	

Table 16 shows that most respondents have high knowledge but have bad behavior as much as 57.3%.

q. Cross tabulation of attitudes with safety riding behavior

Table 17. Cross tabulation of attitudes with safety riding behavior

Variable			Behavior		Total
			Good	Bad	
Attitude	Negative	Amount	21	29	50
		Percentage	20,4%	28,2%	48,5%
	Positive	Amount	7	46	53
		Percentage	6,8%	44,7%	51,5%
Total		Amount	28	75	103
		Percentage total	27,2%	72,8%	100%

Table 17 shows that most respondents have a positive attitude but with bad behavior 44.7%.

**Statistics test result**

a. Logistic Regression part I

Tabel 18. Logistic regression part I

Variable	Significance	OR
Knowledge	0,033	3,141
Attitude	0,081	2,613

The result of logistic regression test part I shows that there is an influence of knowledge on the behavior of the respondent's safety riding and there is no influence on the attitude of safety riding behavior.

b. Logistic Regression part II

Tabel 19. Logistic Regression part II

Variable	Significance	OR
Knowledge	0,005	4,219

Table 19 shows the influence of knowledge on the behavior of safety riding respondents. Odd ratio of 4.219 shows that high knowledge will increase the chances of 4 times safety riding behavior compared to low knowledge.

**DISCUSSION**

**a. The influence of knowledge on the behavior of safety riding**

Green's theory in Notoatmodjo about health issues states that there are two causes, behavioral factors and non-behavioral factors. Furthermore, according to Green, behavioral factors are influenced by predisposing, enabling and reinforcing factors. Predisposing factors include education, knowledge, attitudes, beliefs and values. This predisposing factor is mostly formed due to exposure to cultural and social factors that exist around individuals. We see that people are getting used to seeing children driving in motorized vehicles, so that it will shape our perception regarding safety riding.

The results showed that most respondents had bad behavior in driving 72.8% even though the respondents' knowledge about safety riding was in the high category 69.9%. This shows that high knowledge does not always cause behavior changes. Logistic regression test results showed a significance value of 0.005 with an Odd Ratio value of 4.219 indicating that there was an influence of knowledge on the driving behavior of high school students in the city of Kediri.

#### **b. Influence of attitudes towards safety riding behavior**

The results showed 44.7% of respondents had a positive attitude but had poor safety riding behavior. A positive attitude is shown by the respondent by having the approval that humans are the most important factor when driving, using Personal Protective Equipment (APD) will protect drivers against traffic accidents. This positive attitude is not shown by good driving behavior. This is indicated by the high number of driving accidents experienced by respondents. Forms of driving accidents such as being hit by other motorists, crashing or slipping on the sidewalk even to the point of colliding with other drivers and causing casualties.

Determining safety riding behavior is the individual it self, while public health personnel have a duty to change human behavior at risk to public health by looking at the prevalence and predisposing, enabling and reinforcing factors. The results obtained are then communicated back to the population by paying attention to the characteristics of the population or in the language of public health referred to as social marketing. Driving healthy and safe is a shared responsibility. Improving the perception, knowledge and positive attitude to change the safety riding behavior of all communities is one of the problems in public health.

The results of logistic regression analysis showed a significance value of 0.081 showed no influence on attitudes towards the safety riding behavior of teenagers in the city of Kediri. The results of this analysis can be seen from the percentage of positive or negative respondent attitudes both of them have poor safety riding behavior.

#### **c. The influence of knowledge and attitudes towards safety riding behavior**

The results of logistic regression test for safety riding behavior were seen from the knowledge and attitude that showed that influence was knowledge. High knowledge will increase the chances of safety riding behavior 4 times compared to if knowledge is low. The cause of traffic accidents is due to unsafe driving behavior of motorists. Usually unsafe behavior is dominated by groups of young people or young people (according to WHO early adolescents aged 10-14 years and late adolescents aged 15-20 years). Accidents from the mildest to causing casualties or death. In this study the age category was mostly 15-17 years. In theory, human development in adolescence is a period of transition to adulthood. It was at this time that they sought identity and one of the forms of the identity search process was driving behavior. Peer / friendship environment is very influential in the process.



#### IV. Conclusion

There is an Influence of Knowledge on the Safety Behavior of Riding Students of SMK Negeri 2 Kediri. There is no Influence of Attitudes on the Safety Behavior of Riding Students of SMK 2 Kediri City

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