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# Related Factors To Safety Riding Behaviour on Students of "X"Faculty, "Y" University

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#### Abstract

Background: Safety riding is a behavior which rides a motorcycle by giving priority on their own safety and other road users. Data from Satlantas Polrestabes Semarang taken from January to April 2015, shows that 66.5% of 32,340 people are college students. According to the preliminary survey in "Y" University showed that many students are less in practicing safety riding, one of them is "X" Faculty. The result of survey, more than 70% of students go to college by riding a motorcycle. All respondents, 10 people which have good knowledge, while 90% are still doing trespass. The purpose of this research is to determine the related factors of safety riding behaviour on students of "X" Faculty.

Method: This research used a cross-sectional observational analytic approach. Subjects are 100 student

motorcyclists "X" Faculty.

**Results:** The results were obtained by 51% of respondents behaved safety riding well and 49% of respondents are unsafe. Based on data analysis using chi square obtained related variable was the attitude (p-value: 0.001), the participation of training (p-value: 0.008), and the role of peer group (p-value: 0.028). While unrelated variables were driving period (p-value: 0.435), knowledge (p-value: 0.708), the condition of the motorcycle (p-value: 0.368) and the presence of safety apparels (p-value: 0.430).

Conclusion: Researcher suggests held safety riding training on campus environment to improve the knowledge and skills of students in riding a motorcycle.

Keywords: safety riding

# 1. INTRODUCTION

The era of globalization demands of modern society has high mobility. High mobility increases traffic density. With the development of traffic density, currently found facts showing that the highway is the place full of accident that claimed lives. (1)

In developed countries, traffic accidents are included in the top five leading causes of death beyond the HIV / AIDS, Malaria, tuberculosis and coronary heart disease. (2) In Indonesia, the death victim from traffic accidents reached 120 people per day, and the most cases occur in motorcyclists. (3)(4)

In Semarang on 2014 occurred 801 traffic accidents, which the most frequent caused by human error factor is 80-90 percent. (5) (6) Incidence of accidents based on the number of trespassing, the

data taken from Satlantas Polrestabes Semarang recorded 32.340 people from January to April 2015 and 60 percent are students and college students. (6)

"Y" University is a state university in the capital of Central Java province which has ten thousands students rides motorcycles every day. Based on the security staf explanation in the past year until the beginning of 2015 occured about 30 accidents, mostly experienced by students.

The cause of the accident varied, but dominated by the negligence of the rider such as riding at high speed, the condition of the motor which is not according to standards, riding against the flow, turn without turning on the lights sign and transport more than one person. Based on a comparison between a single accident with accidents involving other parties, namely 3: 1, so it can be suspected that the cause of almost all the incidents due to the practice of motorcyclist.

Safety riding is an effort to ride where motorcyclists pay more attention to save themselves and other road users in order to reduce accidents. (7)

According to Dian Afrilia, there are several factors related to the practice of safety riding there are age, knowledge, attitudes, the support of family and coworkers. (8)

"X" Faculty on "Y" University which had active students in the academic year 2014/2015 reached 1562 students. Based on observations, researcher found more than 70 percent of the total active student is riding a motorcycle.

Based on the early survey which used the checklist and interviews to 10 respondents, most respondents have a fair long period of riding which is more than 6 years, the average respondent began to drive before the age of 17 years and does not have a license. Almost all respondents know about the definition of safety riding, while lack of knowledge about the technical vehicle worthiness, the respondents did not understand the part of what should be checked before driving. Nine of ten respondents had committed a trespassing. Trespassing are often performed were riding against the flow, do not bring a complementary letter (driver's license, vehicle registration), trespassing traffic lights, did not use a helmet, and riding at high

Based on data above, it is necessary to know what factors related of safety riding behavior on the "X" Faculty "Y" University.

#### 2. METHOD

This research is used in quantitative research with the analytical method observational cross-sectional approach. (9) Sampling in quantitative research using Lemeshow formula and obtained total of 100 respondents who have criteria as a student in 2012, 2013, and 2014, as well as having and riding a motorcycle.

The technique sampling used incidental sampling, where anyone who met and include as corresponding data source criteria. (10) The collection of research data conducted by interviewing respondents and observation of the condition of the motorcycle respondents.

Before the interview, questionnaire conducted trials on 10 people who had nearly the same as the sample criteria.

Data analysis is the analysis of univariate and bivariate. Univariate analyzes performed to get an overview of the distribution and frequency of dependent and independent variables. While the bivariate analysis used to determine the correlation between independent variables and the dependent variable. In this research, analysis using chi square test. Chi Square is a statistical technique used to examine the effect between two variables when the scale of the study are variable data in the form of nominal and ordinal variables.

#### 3. RESULTS

This research was conducted from 100 student motorcyclists "X" Faculty, "Y" University. The result obtained the respondents age ranged between 19-21 years. Which 65% are woman. Respondents who had accidents while riding a motorcycle since at least 1 year ago was 37% and conduct trespassing was 89%. Trespassing are often performed by respondents trespass the traffic lights, did not use SNI helmet, did not carry driver's license and vehicle registration.

The results of research on "The Related Factors of Safety Riding Behaviour on Students of "X" Faculty "Y" University" from 100 respondents were obtained by 51% of the students behaved safety riding behaviour and 49% of students did not behave safety riding behaviour. From these results indicate, the safety riding behaviour on the students of the "X" Faculty "Y" University in 2015 is almost equal between safe and unsafe.

#### 4. DISCUSSION

Safety riding behaviour includes three sections: before, during and after riding. One of before riding behavior, known that 74% of respondents never do stretching to relax the muscles. Checks the motorcycles part such as brakes, tires, lights, and a rearview still rarely carried out by the respondent. Whereas the checking function to determine the function and viability so that it can be treated as well as repair motorcycle's sparepart.

At the time of riding, one of the behaviors that's bring the complementary of the C driver's license and vehicle registration, 5% of respondents did not have a SIM C (riding licence). This violates article 57 of Law No. 22 of 2009 on Road Traffic and Road Transport. (11) It has no equal in the absence of readiness of motorcyclists and considered not feasible to ride a motorcycle, because in the process of making drive lisence the rider should pass through several tests, such as tests of knowledge and skills tests.

Besides that, the use of safety apparels like jackets, shoes, gloves, and masks are still very lacking. Only 47% respondents who always use safety apparels when riding. The use of safety apparels serves as a security which gives the effect of

convinience and health for the rider. Although it cannot prevent accidents, the existence of safety apparels serves as protection during an accident, so that reducing the impact and injury to the rider's body. (12)

One of after riding behavior is routinely served according to the schedule specified by the dealer. Checking can determine the function of motorcycle parts, to prevent events that could cause accidents. In addition, regular inspection and maintenance can make motorcycle engines more durable. (13)

In this research, researcher is using the theory of Lawrence Green where the behavior is formed of three factors among which predisposing, enabling and reinforcing. (14) The theory developed in accordance with the theory about safety riding. In the predisposing, the factors are knowledge and attitude towards riding safety. On enabling factors consist of motorcycles conditions, the existence of safety apparels, and the participation of safety riding training. And reinforcing factors are the role of peers in formers behaviors safety riding.

# Riding Period

The results of research shows mostly students motorcyclists have riding period between 1-5 years. On the other hand riders between 6-11 year periods are 43%. The frequency shows there is no significant difference between the periods of Result of crosstabulation respondents whose drive for 1-5 years have a safety riding behaviors are 54.4% from of 31 people. Based on Chi Square test, the result for the p-value is 0.435 (> 0.05), which show there is no significant correlation between riding period and safety riding behavior student of the "X" Faculty "Y" University in 2015.

These results are not in accordance with previous research that says that there is a correlation between riding periods with safety riding behavior. Younger riders tend to be involved in accidents due to lack of experience in driving. (15)

#### **Knowledge of Safety Riding**

Knowledge is the result of knowing and perform sensing that occurs after a person towards a particular object. The level of knowledge of a person can be affected by various factors such as education, experience, length of service, age, obtained information, and social culture. (16)

The survey results show that knowledge respondents are classified as a good category there is 87%. Crosstabulation of the results is more than a

majority of respondents is having a good knowledge about safety riding behavior. Based on bivariate analysis p value scored 0.708 indicates that there is no correlation between knowledge of safety riding towards safety riding behavior.

Actually, the students have knew about few related things in the practice of safety riding, such before, during and after the ride that answered correctly by 98% of respondents, but in practice there are still many students who does not even perform checks before riding. The score of respondents that never checked brake are 16%, do not check the tires and lights are 25%.

# Attitudes toward Safety Riding

Based on the results 72 respondents have a positive attitude towards safety riding. Although more than a majority of respondents have a positive attitude but in practice there are fewer respondents known that sometimes doesn't checked the condition of the motorcycle before riding. So it is necessary to change the attitudes of respondents in order to realize them that checking the condition of the vehicle is important.

Judging from the results of cross tabulation between attitudes towards safety riding behavior, researcher found that negative attitudes of the respondents indicated to do unsafe riding behavior are 75%. And the results of the testing indicate that the chi square test p-value is 0.001, which means pvalue < 0.05 so it can be concluded that there is a relationship between the attitudes of respondents and safety riding behavior X student of the Faculty of "Y" University in 2015.

#### **Motorcycles Conditions**

Based on observations on the entire motorcycle respondents shows that there are 80% of respondents is categorized as a rider that obey the regulation with the technical requirements and road worthiness.

Based on bivariate analysis using the chi square test p value is 0.368, which means that there is no correlation between the conditions of the motorcycle and safety riding behavior. 60% of respondents have a behavioral safety riding, although the conditions of motorcycle are not proper. Nevertheless, a rider should perform routine checks before riding a motorcycle in order to know which part is not appropriate or even damaged. So that the motorcycle is considered safe and does not harm the rider.

### The Existence Safety Apparels

Safety apparels serve as a protective gear for riders who can minimize the occurrence of injury or exposure arising during riding. It is known that 71 respondents have complete safety apparels consisting of SNI helmets, jackets, shoes that cover the ankle, gloves and masks.

99% of respondents who have SNI helmet and jacket, in practice only 89% who always use SNI helmet when riding. While other equipment, amounting to 81% of respondents have a glove and only 23% who always wore and 89% of respondents have a mask while only 33% who always wore when riding. Based on the results of the bivariate analysis concluded that there was no correlation between the presence safety apparels and safety riding behavior. (p-value: 0.430)

# Safety Riding Training Participation

Based on the results of research conducted in the respondents known that 16 respondents had attended the training. From the results of cross tabulation between the participating training with safety riding behavior found that respondents who had attended training and have a safe riding safety behavior are 81%. And the results of the testing indicate that the chi square test p-value is 0.008, which means p-value ≤ 0.05 can be concluded that there is a correlation between the participation of safety riding training and safety behavior on students of the "X" Faculty University Diponegoro in 2015.

Results were in line with the police say that riding safety training needs to be done in order to improve the skills of the rider. So the rider should be better in understanding of how to drive properly and correctly. (15)

#### Role of Peer

From the research shows that 58% of respondents is indicating the role of peers in driving behavior. While 48% say that friends does not influence the riding behavior.

Peers are people with age and maturity level are almost the same. One of the most important functions of the peer group is to provide a source of information and comparison of objects outside the family, (16)

Results of cross tabulation shows that there are 61.9% of students who aren't motorcyclists behave safely in the safety riding and mentions the absence of the role of peers. Based on Chi Square test, the result for p-value is 0.028 (> 0.05) thus indicates no correlation between the role of peers towards safety riding behaviour student of the "X" Faculty "Y" University in 2015.

These results are consistent with studies conducted by Sumiyanto on students SMAN 1 Semarang, where the variable peers have significant value of 0,000 that showed no correlation between peers to practice safety riding. Based on the research results, the behavior of peers are keeping ride while the traffic light is yellow, using the handphone while riding, smoking while riding, and trespassing traffic signs. The researchers suggest avoiding negative behaviors of peers. (17).

#### 5. CONCLUSION

Students motorcyclists at "Y" University "X" Faculty in range of age from 18-22 years, 65% of respondents were female, has a riding period of 1-5 years are 57%, 37% had an accident since a past year and 89% still trespass the regulation.

Safety riding behaviour on the students of the "X" Faculty "Y" University is 51%.

Respondents were riding a motorcycle at 87% having good knowledge and 72% had a positive attitude about safety riding.

Respondents who have standard conditions motorcycles are 80%, complete safety apparels are 71%, and participation in a safety riding training only 16%.

The existence of the role of peers in riding safety behavior is 58%.

There is no correlation between riding period towards safety riding behavior (p-value: 0.435).

In the predisposing factors, shows that there is no correlation between knowledge of safety riding behavior (p-value: 0.708) and there was a correlation attitude towards safety riding behavior (p-value: 0.001).

On the enabling factors, shows that there is no correlation between the condition of motorcycles (pvalue: 0.368) and the presence of safety apparels (pvalue: 0.430) on the behavior of safety riding, while there is a correlation safety riding training participation on safety riding behavior (p- value:

On reinforcing factors, there is a correlation between the role of peer and safety riding behavior (p-value: 0.028)

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