

# The Relationship of Health Status with Occupational Accidents among Online Taxibike Drivers in Sumedang Regency in 2023

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## Article Info

### Article history:

Received May 12, 2024

Revised May 20, 2024

Accepted May 26, 2024

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### Keywords:

Occupational Accidents  
Online Taxibike Drivers  
Health Status

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## ABSTRACT

One of the problems in transportation is traffic accidents. This problem generally occurs when transportation facilities, both in terms of roads, vehicles, and other supporting facilities have not been able to keep up with developments in society. This study aims to determine the relationship of the health status of online taxibike drivers. This research method uses quantitative research using a cross sectional approach. The population in this study were online taxibike drivers totaling 1,082 drivers. So that a sample of 92 respondents of online taxibike drivers was obtained. The sampling technique used in this study was accidental sampling. Bivariate analysis using chi-square test. The results of the bivariate test showed a p-value of 0.019, meaning that there is a relationship between knowledge and the incidence of online taxibike driver accidents in Sumedang Regency in 2023. Based on the results of research and discussion as a whole, good health status is needed. That way it will reduce the occurrence of work accidents in online taxibike drivers in Sumedang Regency.



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## 1. INTRODUCTION

One of the problems in transportation is accidents. This problem generally occurs when transportation facilities, both in terms of roads, vehicles, and other supporting facilities have not been able to keep up with the developments that exist in society. "Economic growth and a large population lead to increased activities to fulfill needs, which of course also increase the need for transportation, both private and public (Hedaputri et al., 2021)".

Initially, the problem of traffic accidents was only a transportation issue. With the increasing number of deaths caused by traffic accidents, which according to WHO is the third leading cause of death in the world after heart disease and HIV AIDS, safety issues are part of health issues. Even traffic accidents are classified as non-communicable diseases. "Accidents not only cause trauma, injury, or disability, but also death (Hobbs, 1995)".

Deaths resulting from traffic accidents cause suffering for the families left behind. Victims of traffic accidents also suffer serious and even lifelong injuries, leaving them unable to carry out their activities properly. Therefore, the issue of traffic safety has been proposed as part of human rights. Traffic accidents are statistically rare events. In developed countries, accidents occur only once in every 80,000 kilometers traveled by the average driver. However, when viewed in terms of the aggregated numbers and the economic and humanitarian impact, addressing traffic safety incidents is seen as crucial.

Traffic accidents are influenced by the characteristics of motorcycle drivers. In addition, there are also factors that can cause traffic accidents, including: negligence, drowsiness, fatigue, drunkenness, disorderly,

unskilled and high-speed drivers. Vehicle factors, in this case motorcycles, are one of the factors that cause traffic accidents. Risky vehicle factors include: blong brakes, tires, skids and vehicle lights. Meanwhile, physical environmental factors are external factors that influence the occurrence of traffic accidents (Tuasikal, 2020).

Along with the development and progress in the era of technological modernization, the internet has changed the patterns and behavior of society. Technological advances in the field of transportation, for example, have made several companies use this opportunity to develop online-based transportation applications that can be accessed and used by various groups very easily and efficiently. There are many companies that organize online taxibike drivers or commonly called ojol, one of which is PT Go-jek.

Although online taxibike is considered safer because it is under the auspices of an agency / PT, it turns out that online taxibike transportation also has a high level of accident risk. Based on research conducted by Setyawan (2015), the number of work accidents on the road is greater than accidents in other workplaces, especially for online taxibike drivers who spend most of their working time on the road.

Based on data reported by the minister of transportation, 79% of online taxibike drivers experienced traffic accidents or a total of 58,715 cases in 2017 (Simamora, 2018). Based on the news reported, at least two online taxibike drivers die every day due to accidents. The desire to pursue targets that make drivers pay less attention to caution in driving (Fiandri, 2017).

Research conducted by Nurhafizhah (2017) says that the most influential factor in the ability to drive safely in online taxibike drivers is the fatigue factor of 62.85%. Fatigue that occurs in taxibike drivers is a result of the imbalance between age, working hours, and the total distance that has been traveled with rest time. In fact, the law number 13 of 2003 has set a time limit for working hours which is eight hours a day if working for five days a week.

In addition, another factor that causes high accidents in online taxibike is the activity of playing smartphones while driving by 54.5% (Bolbol, 2018). Smartphone for online taxibike drivers is the most important thing in carrying out their work. However, it is not a reason to allow playing smartphones while driving because it can interfere with concentration. This has also been regulated in Minister of Transportation Regulation Number PM 12 of 2019 which says that riding a motorcycle is done reasonably and with full concentration. Reasonable here means that the motorcycle driver does not do other activities that can break concentration.

Based on the results of a preliminary study with 10 online taxibike drivers in Sumedang Regency in 2023, it is known that all of them have experienced traffic accidents while working. Accidents are caused by many factors, including being hit, lack of concentration resulting in hitting the shoulder, traffic violations, fatigue, declining health conditions, not using appropriate driving equipment, pothole conditions, and bad weather conditions. Health problems are also experienced by online taxibike drivers who have working hours exceeding the limit (7-15 hours per day) including problems in the lower back of the driver as well as cramping problems in the buttocks and shoulders to the wrist.

Thus it can be said that online taxibike drivers have not paid attention to good driving aspects such as safety, security, comfort, affordability, and order. Factors that cause accidents are divided into human factors, vehicle factors, road factors, and environmental factors (Raharjo, 2014). Safety riding knowledge will familiarize a person to be more careful and aware of using the vehicle safely. Safety riding is one type of driving behavior. Where driving behavior is divided into 2 types, namely safe driving behavior (safety riding) and dangerous driving behavior (dangerous driving). Safety riding is a safe driving behavior that can help avoid accidents (Andi S, 2014). Dangerous driving is the behavior of drivers in driving that endangers or has the potential to endanger other drivers, passengers and also road crossers.

In attitude, there are components in it that enter into feelings of knowledge and when someone will take action. Attitudes can also be interpreted in evaluative biases on objects or subjects that can have consequences for an individual's attitude towards the object in front of him. Basically, the relationship between attitudes and behavior is indeed interrelated with each other, based on the results of research also reveal that attitudes and behavior have their own relationship, this can also be related to one of the psychological factors that exist from both, in order to create consistent harmony (Ismail, 2017).

Motorcyclists who often mobilize in urban areas today are online taxibike drivers. Based on the results of preliminary studies conducted there are still online taxibike drivers who are not balanced with supporting safety facilities such as not using masks, gloves, shoes, not buttoning helmet safety and some when driving they smoke and use headsets. Showing the attitude of online taxibike drivers is still lacking in complying with the rules to avoid work accidents.

There is also a health status that can affect the occurrence of work accidents in this online taxibike driver. Each driver must get adequate rest, limit driving time especially during the middle of the night and early morning as well as setting working hours and rest hours as stated in Traffic law no. 22 of 2009 article 90 paragraph 3 which says that every public motorized driver after driving a vehicle for 4 (four) consecutive hours

must rest for at least half an hour. Based on the description of the background of the problem above, the authors are interested in making research in the form of a thesis with the title "Relationship between Health Status and the Incidence of Work Accidents in Online Taxibike Drivers in Sumedang Regency in 2023."

## 2. METHOD

The type of research used in this study is a type of quantitative research with cross sectional research methods. The population in this research is online taxibike drivers in Sumedang Regency with a total of 1082 people. The sample used in this study was 92 people who were taken using the Slovin formula. The sampling technique used in this study used accidental sampling. Accidental sampling is a sampling technique based on chance, that is, anyone who happens to meet by chance is suitable as a data source (Sugiyono, 2011).

## 3. RESULTS AND DISCUSSION

### 3.1. Results

#### A. Univariate Analysis

##### 1) Health status of online taxibike drivers in Sumedang Regency in 2023

**Table 1**  
Frequency of health status of online taxibike drivers in Sumedang Regency in 2023

Health Status	Frequency	Percent (%)
Unhealthy	65	70,7
Healthy	27	29,3
Total	92	100,0

Based on table 3, it can be concluded that the majority of online taxibike drivers with health status levels are in the unhealthy category, namely 70.7%.

##### 2) Accident of online taxibike driver in Sumedang Regency

**Table. 2**  
Overview of the frequency of occupational accidents of online taxibike drivers in Sumedang Regency in 2023

Incidence of work accidents	Frequency	Percent (%)
Never had a work accident	62	67,4
Ever had a work accident	30	32,6
Total	92	100,0

Based on table 4, it can be concluded that the majority of online taxibike drivers in Sumedang Regency in 2023 have never experienced work accidents 67.4%.

#### B. Bivariate Analysis

##### 1) The relationship between health status and the incidence of work accidents in online taxibike drivers in Sumedang Regency in 2023

**Table. 3**  
Relationship between health status and the incidence of work accidents in online taxibike drivers in Sumedang Regency

Health Status	Incidence of Work Accidents in online taxibike drivers						value
	Ever been in an accident		Never had an accident		Total		
	F	%	F	%	F	%	
Unhealthy	26	21.2	39	43.8	65	65,0	<b>0.019</b>
Healthy	4	8.8	23	18.2	27	27,0	
<b>Total</b>	<b>30</b>	<b>30.0</b>	<b>62</b>	<b>62.0</b>	<b>92</b>	<b>92,0</b>	

Based on table 3, the significance result is  $0.019 < \alpha = 0.05$ , there is a significant relationship between health status and the incidence of work accidents in online taxibike drivers in Sumedang Regency in 2023. This shows that the two variables have a negative relationship, meaning that the higher the health status, the lower the incidence of work accidents in online taxibike drivers and vice versa. Due to the results there is a significant relationship then  $H_0$  is rejected, both variables have a fairly close correlation level.

**a. Discussion**

**1) The results of the frequency distribution of health status with the incidence of work accidents in online motorcycle taxi drivers in Sumedang Regency in 2023.**

The results of the frequency distribution shown in this study that online ojek drivers in Sumedang Regency with unhealthy health status are 70.7%. This is because online ojek drivers do not all know the health status of work accidents, especially regarding traffic rules and regulations in driving on the road must be in good health and not in a sick condition. The results showed that poor health factors increase the risk of accidents. Poor health factors such as having a history of illness that can interfere with driving activities, fatigue and complaints about body conditions such as wrists, back and hips which are the result of driving too long because they have working hours that exceed normal limits. Law No. 13 of 2003 on labor regulates the limit of working hours, which is eight hours a day if working for five days a week. However, the average respondent works more than 8 hours a day to pursue the expected target.

**2) The results of the frequency distribution of occupational accidents in online motorcycle taxi drivers in Sumedang Regency in 2023.**

The results of the frequency distribution shown in this study that online motorcycle taxi drivers in Sumedang Regency in 2023 have never experienced an occupational accident 67.4%. Work accident (accident) is an undesirable event or event that causes harm to humans, loss to the process, or damage to property that occurs in an industrial work process. An accident is an unexpected and unexpected event. Unexpected, because there is no element of intent, let alone planning behind the event. Accidents are unexpected because they are accompanied by material loss or suffering, from the mildest to the most severe. Work-related accidents are accidents related to the workplace, in the sense that accidents occur due to work or while carrying out work as well as potential accidents that occur on the way to and from work (Suma'mur, 2014). Work accidents occur due to a series of previous events or factors, where if one part of the event or factors is eliminated, the work accident does not occur. In general, the causes of work accidents are classified into two, namely unsafe actions and unsafe conditions. Unsafe action is a human action or deed that does not comply with the principle of safety, for example not using a safety belt when doing work. Meanwhile, unsafe condition is an unsafe workplace environment.

**3) The relationship between health status and the incidence of work accidents in online motorcycle taxi drivers in Sumedang Regency in 2023**

Based on the results of table 7 of this study with the significance value of the chi-square statistical test  $p$  value  $0.019 < 0.05$ , meaning  $H_0$  is rejected. The results showed that there is a significant relationship between health status and the incidence of work accidents in online motorcycle taxi drivers in Sumedang Regency in 2023. This shows that the two variables have a negative relationship, meaning that the lower the health status, the higher the incidence of work accidents in online motorcycle taxi drivers and vice versa. Health is a state of health, both physically, mentally, spiritually, and socially that allows everyone to live socially and economically productive (Health Law Number 36, 2009). Health history is information about a person's health. Some evidence suggests that health is related to accidents. Workers who have poor health or many health problems tend to have higher accidents. In addition, drug consumption can also increase the risk of accidents due to side effects such as drowsiness from the drug (Tarwaka, 2008).

Riding a motorcycle requires more stamina than driving a car. Fatigue will affect a person to make decisions quickly and make it difficult for the driver to concentrate, balance, and vision. Fatigue is caused by drivers riding motorcycles beyond working hours or drivers lacking sleep (Nurhafizhah, 2017). Health due to driving too long based on research conducted by Nurhafizhah (2017) there are health side effects on motorcycle taxi drivers, namely health complaints, especially those related to the lower back and soreness in the driver's wrist which can cause discomfort in driving which can cause accidents.

The results of this study are in line with research conducted by Suwandi N (2023) on driving safety health status showing the results of statistical tests obtained  $p$  value =  $0.003 < 0.05$ , meaning  $H_0$  is rejected. The results

showed that there was a relationship between health status and the incidence of work accidents. Another study that is in line with this research conducted by Herry K, et al (2020) on safety health status shows the results of statistical tests obtained  $p$  value =  $0.012 < 0.5$ , meaning  $H_0$  is rejected. The results showed that there was a relationship between health status and the incidence of work accidents. This researcher is different from previous studies because to the best of the author's knowledge there is still no other research that examines the relationship between knowledge, attitudes and health status with the incidence of work accidents in online motorcycle taxi drivers in Sumedang Regency in 2023 with quantitative methods.

## 2) CONCLUSION

Based on the results of research conducted on 92 respondents of online motorcycle taxi drivers, regarding the relationship between knowledge, attitude and health status with the incidence of work accidents in online motorcycle taxi drivers in Sumedang Regency in 2023, the following conclusions can be drawn as follow:

1. The health status of online motorcycle taxi drivers in Sumedang Regency in 2023 in the unhealthy category is 70.7%.
2. The incidence of occupational accidents of online motorcycle taxi drivers in Sumedang Regency in 2023 in the category of never having an accident is 67.4%.
3. There is a relationship between knowledge and the incidence of work accidents in online motorcycle taxi drivers in Sumedang Regency in 2023, with a  $p$  value of  $0.007 < 0.05$ .

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