THE INFLUENCE OF INTERVENTION OF WHATSAPP GROUP CHAT AGAINST KNOWLEDGE AND ATTITUDES OF SAFETY RIDING FOR OJEK ONLINE DRIVERS IN TEMBALANG, SEMARANG CITY

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ABSTRACT

One of the ways to reduce traffic accidents is to apply safety riding while driving. The rapid development of communication and transportation technology has led to modes of online-based transportation. The advantage of online transportation is that it can find out fares before use and information about drivers or vehicles. The purpose of this study was to analyze the effect of providing information with WhatsApp group chat to improve the knowledge and attitude of riding an ojek online driver in the Tembalang area of Semarang. Methods: Quasi experiment with pre-test post-test, sample selection with a total sample of 56 respondents (28 intervention respondents and 28 control respondents). There is a significant difference when $p < 0.05$. The results of the study found pretest knowledge variables between control treatments p=0.541, pretest-posttest treatment p = <0.001, pretest-posttest control p = <0.002, posttest between control treatments p = <0.01, difference between pretest-posttest between treatment and control p = <0.001. Pretest attitude variable between treatments control p = 0.804, pretest-posttest treatment p = <0.001, pretest-posttest control p = < 0.265, posttest between control treatments p = 0.001, pretest-posttest difference between control treatments p = <0.001. There are significant differences in knowledge and the attitude of the respondents before and after the intervention. This means that using WhatsApp group chat can increase the knowledge and safety attitude of ridding ojek online driver.

KEYWORDS: Knowledge, Attitude, Safety Riding, WhatsApp, Gojek, Grab

INTRODUCTION

Traffic accidents are a serious health problem in the world and are very serious problems in developing countries like Indonesia. In low and middle income countries, more than 50% of injuries are caused by traffic accidents. In 2008 countries with high incomes such as America, the average death rate due to traffic accidents was 53.8 per 100,000 populations while in Europe it was 47.6 per 100,000 populations. Countries with lower incomes such as India, the average death due to traffic accidents are 96.7 per 100,000 populations, while other Asian countries are 75 per 100,000 populations[1,2.]

According to the World Health Organization in 2013 1.25 million people worldwide died due to traffic accidents. In 2016 that number increased to 1.35 million people. In Indonesia, traffic accidents are the 3 biggest causes of death after HIV/AIDS and Tuberculosis[1].

Traffic accidents in Central Java Province in 2018 were 13,270 cases, in 2019 there were 19,261 cases, meaning there was an increase in traffic accidents by 45%. From 1,507,023 traffic violations that occurred resulted in 3,167 victim died. Tembalang is a sub-district in Semarang City, Central Java Province, which is an educational area because there are several public and private universities. Even though it is an education area, driving behavior in the area is lacking, this can be seen from the number of traffic violations in the area.

Based on UU RI No. 22 of 2009 concerning Traffic and road transportation, the causes of traffic accidents caused by motorbikes can be clarified into four factors, namely, negligence of road users, vehicle inadequacy, roadworthiness and the environment. In Indonesia, two-wheeled vehicles are used as public transportation called ojek. The development of communication technology and transportation services at this time and age results in online modes of transportation. Traffic, uncertainty of time and cost and security that cannot be met by public transportation can be overcome by online transportation modes. In Indonesia, there are two online transportation service providers, namely gojek and grab, which provide ojek online services[3, 4, 5.]

Safety riding is driving behavior that refers to safety standards in a country. Safety riding is a driving ability that leads from the driver's knowledge (theory) and practice (skill) [1, 6]. Safety riding behavior can prevent traffic accidents. The development of online media and smartphones is currently being researched to improve health aspects by many researchers. In its development health practitioners utilize social media to convey health information. WhatsApp is the most popular application in the world with many superior features. The job as an ojek online driver is very depended to smartphones and the internet. In other words, online media is very close with work as an online motorcycle taxi driver[7, 8.]

Based on the description above, the researcher is interested in the research title: The Influence of Intervention of WhatsApp Group Chat against Knowledge and Attitudes of Safety Riding for Ojek Online Drivers in Tembalang, Semarang City.

RESEARCH METHODS

The research design used in this study was a quasi-experimental study with a non-equivalent control group design with pretest and post-test design. This study uses two groups, namely the intervention group and the control group[9, 10.] The intervention group is an online motorcycle taxi group in the Tembalang area of Semarang City. The intervention group is an online motorcycle taxi group in the Pleburan area of Semarang City. The two regions are areas that have many educational institutions in the city of Semarang. The intervention group will be given safety riding information through the WhatsApp group chat media for 30 days. The control group did not get any treatment. Measurement of variables in this study was conducted twice, namely pretest and posttest. Then the measurement results will be compared.

POPULATION AND RESEARCH SAMPLE

1. Population

Population is all units in the observation that will be carried out and have certain characters[9, 11.] The population in this study were Tembalang Undip ojek online driver in the Tembalang area of Semarang City, which amounted to 30 people and Pleburaan ojek online driver in the Pleburan area of Semarang city which amounted to 30 people. The total study population was 60 respondents.

2. Samples

The sample is a portion of the population whose characteristics are measured and used to estimate the characteristics of the population selected in a certain way10.

a. Number of Samples

The number of samples in this study used a total sampling of 30 respondents in the treatment group and 30 respondents in the control group. The number of samples is 60 respondents.

b. Sampling technique

The sampling technique used was purposive sampling, which is the technique of determining the sample based on certain considerations.

3. Research Instruments

The instruments used in this study were questionnaires and WhatsApp group chat media.

4. Data Analysis

Univariate analysis was used to determine the frequency distribution, bivariate analysis using Shapiro-test, Independent T-test, Mann Whitney Test, Wilcoxon and Paired T-test10.

RESULTS

1. Characteristics of Respondents

The most of the respondents are around the age group of <35 years. The treatment group was 63.4% and the control group was 46.4%. Marital status the mostly married. The treatment group was 67.7% and the control group was 78.6%. The highest level of education is SMA/SMK/STM. 60.7% of the treatment group and 60.7% of the control group were recorded. Driving experience at most <10 years. The treatment group was 46.4% and the control group was 42.9%. Work per day at most> 8 hours/day. 85.7% of the treatment group and 85.7% of the control group were recorded.

2. Differences in Knowledge of Respondents' Safety Riding Before and After Intervention with Media WhatsApp Group Chat on Ojek online driver.

Table 1. Descriptive, Normality and Difference in Respondents' Knowledge Before and After Intervention.

Knowledge	Group	Mean ± SD	p Value
Pretest	Treatment	4.11 ± 1.83	0.213 *
	Control	4.39 ± 1.64	0.503 *
Posttest	Treatment	7.96 ± 2.17	0.057 *
	Control	5.07 ± 1.90	0.207 *
Difference	Treatment	3.86 ± 1.65	0.018
	Control	0.68 ± 1.02	0,000

Note: * Normal (p> 0.05); Shapiro-Wilk

Table 1 shows the increase in the average value of knowledge of the treatment group from 4.11 to 7.96 and the control group from 4.39 to 5.07. There is an increase in the average value of control group knowledge from 4.39 to 5.07. Test the normality of knowledge variables with Shapiro-Wilk, pretest treatment group p

= 0.213 (normal distributed data) pretest control group p = 0.503 (normal distributed data). Posttest treatment group p = 0.057 (normal distributed data), posttest control group p = 0.207 (normal distributed data). Difference in pretest- posttest in treatment group p = 0.018 (data not normally distributed), difference in pretest-posttest in control group p = 0.00 (data not normally distributed).

Table 2. Analysis of Respondent's Knowledge Before and After Intervention.

Knowledge	Group		p
	Control	Treatment	
Pretest	4.11 ± 1.83	4.39 ± 1.64	0.541§
Posttes	7.96 ± 2.17	5.07 ± 1.90	<0.001§ *
p	<0,001¶ *	0,002¶ *	
Difference	3.86 ± 1.65	0.68 ± 1.02	<0.001 ‡ *

Note: * Significant (p <0.05); § Independent t; ‡ Mann Whitney; ¶ Paired T

Table 2 shows the analysis of respondents' knowledge before and after the intervention. The difference in the average value before the intervention (pretest) of knowledge between the treatment and control groups p= 0.541 > α= 0.05 (independent t-test), meaning that there is no significant difference. The difference in the average value of respondents' knowledge of the treatment group before and after the intervention p = <0.001 < α = 0.05 (Paired t-test), meaning that there are significant differences. The difference in the average value of knowledge of the control group respondents before and after the intervention p = 0.002 < α = 0.05 (Paired t-test), meaning that there are significant differences. After the intervention (posttest) the difference in the average value of knowledge between the treatment and control groups p = <0.001 < α = 0.05 (independent t-test), meaning that there are significant differences. Difference in the difference in the average pretest-posttest values between the treatment and the control group p = <0.001 (Mann Whitney test), meaning that there are significant differences.

3. **Differences in respondents' safety riding attitudes before and after intervention with the WhatsApp group chat on ojek online driver.**

Table 3. Descriptive, Normality and Difference in Respondents' Attitudes Before and After Intervention.

Attitudes	Group	Mean ± SD	P Value
Pretest	Treatment	4.86 ± 2.51	0.028
	Control	5.21 ± 2.01	0.360 *
Posttest	Treatment	7.36 ± 2.06	0.009
	Control	5.39 ± 2.08	0.040
Difference	Treatment	2.50 ± 1.82	0.001
	Control	0.18 ± 0.82	0,000

Note: * Normal (p> 0.05); Shapiro-Wilk

Table 3 shows the increase in the average value of attitude in the treatment group from 4.86 to 7.36 and the control group from 5.21 to 5.39. Test the normality of attitude variables with Shapiro-Wilk, pretest treatment group p = 0.028 (data not normally distributed) control group p = 0.360 (normally distributed data). Posttest treatment group p = 0.009 (data not normally distributed) Posttest control group p =
0.040 (data not normally distributed). Difference in pretest-posttest treatment group p
= 0.001 (data not normally distributed), Difference in pretest-posttest control group p
= 0,000 data not normally distributed).

Table 4. Analysis of Respondent's Attitudes Knowledge Before and After Intervention.

Attitudes	Group		p
	Control	Treatment	
Pretest	4.86 ± 2.51	5.21 ± 2.01	0.804 ‡
Posttes	7.36 ± 2.06	5.39 ± 2.08	0.001 ‡ *
p	<0,001 † *	0,265 †	
Difference	2.50 ± 1.82	0.18 ± 0.82	<0.001 ‡ *

Note: * Significant (p <0.05); § Independent t; ‡ Mann Whitney; ¶ Paired t, † Wilcoxon

Table 4 shows the analysis of respondents' attitudes before and after the intervention. The difference in the average value of the attitude before the intervention (pretest) between the treatment and control groups p = 0.804> α = 0.05 (Mann Whitney test), meaning there is no significant difference. After the intervention (posttest) the difference in the average value of attitude between the treatment and control groups p = 0.001 <α = 0.05 (Mann Whitney test), meaning that there are significant differences.

The difference in the mean scores of respondents' treatment groups before and after the intervention p = <0.001 < α = 0.05 (Wilcoxon test), meaning that there are significant differences. The difference in the average value of the attitude of the respondents in the control group before and after the intervention p = 0.265> α = 0.05 (Paired t-test), meaning that there were no significant differences. Difference in the difference between the pretest-posttest average value between the treatment group and the control group p = <0.001 (Mann whitney test), meaning that there are significant differences.

DISCUSSION

In research based on the age group, the treatment group mostly age <35 years (64.3) the least is >50 years (3.6). The control group is mostly <35 years (46.4%) and the least is >50 years (14.3%). Age is related to how a person think and experience in life. With the increasing age, the more mature way of thinking12. The marital status of the treatment group was the mostly married (67.9%), and the control group also mostly married (78.6%). The education level in the treatment group and control group is mostly high school/SMK/STM respectively (60.7%). People with low education find it difficult to absorb new innovations in which complicate the changes to be achieved13. The driving experience in the treatment group mostly <10 years (46.4%) in the control group (42.9%). A person who is experienced in riding a motorcycle will more easily recognize the environment, but because he feels he already knows the risks, he tends to be less careful14. The maximum length of work per day in the treatment and control groups was >8h hours/day (14.3%).

Knowledge exists after sensing a certain object. Sensing occurs through the five senses namely the sense of hearing, the sense of sight, the sense of smell, the sense of touch and the sense of taste15. Before the intervention, a different test was conducted between the treatment group and the control group to find out whether the two groups were worth their knowledge. The test results (Independent T-test) there were no significant differences between the two groups. This means that the watchful condition of the two groups' knowledge is commensurate.

After intervention with the media WhatsApp group chat to increase respondents' safety riding knowledge, a different test was conducted. Paired T-test results of the pretest knowledge of the treatment group there were significant mean differences ($p = <0.001$). Pretest-posttest control group knowledge (Paired T-test) there is a significant difference in the average of knowledge ($p = 0.002$). There was a significant difference in knowledge between the treatment and control groups (Mann Whitney test) after the intervention ($p = <0.001$).

Thus, before the intervention the two groups had the same safety riding knowledge. After an intervention with WhatsApp group chat media there was an increase in the average knowledge. The treatment group increase from 4.11 to 7.96. The control group increase from 4.39 to 5.07. The difference in pretest-posttest knowledge in the treatment group (3.86) was greater than in the control group (0.68). This means that there is an influence of interventions with WhatsApp group chat media to increase safety knowledge of ojek online driver.

This study is in correlation with Ni Wayan Erviana Puspita Dewi's research found that WhatsApp effectively increased the knowledge of mothers and toddlers' knowledge of pneumonia16. These results are also in line with the research of Simon so who found the use of WhatsApp for teaching and learning can improve student learning achievement in database courses at teacher training institutions in Hong Kong17. The results of this study are also in line with Sandi Somantri's research

which found that learning by using the WhatsApp application significantly increased the knowledge of students in SMK 4 Tasikmalaya[7].

One of the factors that influence a person's knowledge is the source of information. Interesting or not the source of information can affect one's knowledge. Sources of information are in the form of print media, electronic media, and online media. The advantage of online media compared to print and electronic media is feedback. Online media can receive feedback as soon as possible after the communicant receives the message. In contrast to print or electronic media which must be delayed a while[8].

In this study, researchers received feedback from respondents (treatment groups) after researchers distributed safety riding information through the WhtasApp group chat. When getting feedback, this convinced the researcher that the safety riding information that was shared had been received by the respondent. Nanda Diaz Arizona research results found that WhatsApp is more effective in receiving and providing information in terms of data sharing speed and practicality of use compared to line (messenger-based communication media)18. There is a difference in the average knowledge of respondents in the control group. This happened because respondents in the control group obtained safety riding information from other sources during the intervention in the treatment group.

Attitude is a tendency to respond to stimuli in the form of feelings of impartiality or impartiality. From an attitude an action will emerge so that in this situation much of one's experience depends on the experience of others[13.] Before the intervention, a different test was conducted between the treatment group and the control group to find out whether the two safety riding groups were equal or not. The results of the test (Mann whitney test) there were no significant differences between the two groups. It means that the attitude of the two groups is equivalent.

After intervention with the media WhatsApp group chat to improve the respondent's safety riding attitude, a different test was conducted. Wilcoxon test results of the pre- post attitude of the treatment group there was a significant difference in the average ($p = <0.001$). Pree-post attitude of the control group (Wilcoxon test) there was no significant difference in the average attitude ($p = 0.265$). There was a significant difference in attitude between the treatment group and the control group (Mann Whitney test) after the intervention ($p = <0.001$).

Thus, before intervention both groups had the same safety riding attitude. After intervention with WhatsApp group chat media there was an increase in the average attitude. The treatment group increase from 4.86 to 7.36. The control group increase from 5.21 to 5.39. The difference in pretest-posttest knowledge in the treatment group (2.50) was greater than in the control group (0.18). This means that there is an influence of intervention with WhatsApp group chat media to improve respondent safety riding attitudes.

According to Azwar, a person's attitude will change if he gets a stimulus that suits his needs and urgent interests. According to Newcomb, attitude is readiness to act and not the implementation of certain motives. Attitudes derived from experience will lead to more bounded behavior[13, 15.]

The results of this study are in line with Sandi Somantri's research finding that utilizing WhatsApp media improves aspects of student learning attitudes at SMK 4 Tasikmalaya[7]. The results of other studies from Amir Abdalla Minalla show that using WhatsApp can improve students' positive attitudes to learn to speak English outside class hours[19].

There is no difference in the average attitude in the control group, because the control group did not get treatment (safety riding intervention via WhatsApp group chat).

CONCLUSION

1. The age of the respondent in both the treatment group and the control group is at most age group ≤ 35 years. The marital status of both the treatment and control groups are mostly married. The education of respondents in both the treatment and control groups is mostly SMA/SMK/STM. The driving experience of respondents in both the treatment and control groups is <10 years. The length of work each day of the respondent both the treatment group and the control group more> 8 hours/day

2. There was no difference in the average safety riding knowledge before the intervention with WhatsApp group chat media between the treatment group and the control group ($p = 0.541$). There were differences in the mean knowledge of safety riding before and after the intervention in the treatment group ($p = <0.001$). There were differences in the average safety riding knowledge before and after the intervention in the control group (0.002). There were differences in the mean of safety riding knowledge after the intervention between the treatment group and the control group ($p = <0.001$). WhatsApp group chat can increase safety knowledge of ojek online driver

3. There was no difference in the average safety riding attitude before the intervention with WhatsApp group chat media between the treatment group and the control group (0.804). There were differences in the average safety riding attitudes before and after the intervention in the treatment group. There were no differences in the average safety riding attitudes before and after the intervention in the control group ($p = 0.265$). There were differences in attitude after intervention between the treatment and control groups. WhatsApp group chat can improve the safety of riding an ojek online driver

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