



## How WhatsApp Group Information Influence People's Perception About Covid-19?

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### ABSTRACT

*The development of the internet and social media has become a necessity to communicate and access information and to disseminate information to everyone. Social media does have many benefits, but on the other hand there are also many downsides. The correctness of information on social media is very difficult to measure. Covid-19 is a topic that is very often shared in the WA group at this time. The aim of this study is to see how the information about Covid-19 influence people's perception about Covid-19. The study was conducted in April – June 2020 used quantitative approach survey method with 400 respondents in Sukoharjo District. The respondents were selected by quota sampling, then the data that conducted was analyzed by a correlation non-parametric test, Spearman Rank Correlation Coefficient. The result shows that information from WhatsApp Group can influence people's perception of Covid-19 ( $p < 0,05$ ). Correlation coefficient  $-0,220$  shows negative correlation with weak correlation strength. This means information that disseminate in WhatsApp Group have 22% effect to people's perception about Covid-19.*

**Keywords:** *WhatsApp, information, perception, Covid-19*

### I. INTRODUCTION

Due to the advancement in technology, people are pressured to accept different lifestyles (Akram & Kumar, 2017). Technological developments have influenced many aspects of human life. Its existence facilitates every activity carried out by humans, including in communication activities to interact with other humans (Zakirman & Rahayu, 2018; Sukrillah, et al., 2017). Smartphones are an inseparable part of today's technological developments (Aisyah,

2018). There are many uses of smartphones in spreading information for personal, work or family (Sartika, 2018). The emergence of various types of smartphones such as Blackberry, Android, Iphone, Windows Phone and Symbian S60 are examples of technological sophistication in the form of mobile phones. Smartphones are a growing medium by offering various services or applications that support all communication activities (Yusmita, et al., 2018).

The difference in the need for communication and dissemination of information from time to time has also changed, considering that people want media that is more efficient and saves time (Sartika, 2018). Social media are the media where it allows users to interact and socialize to find information, communicate with each other and exchange ideas online (Trisnani, 2017; Rohmiati, 2018; Aisyah, 2018). Increased knowledge society of technology is also demanding availability of the system information that can provide fast information (Igiary, 2019). Everyone needs information to support their activities, so they try to access information as quickly as possible. Social media plays a very important role in disseminating information to the community in all fields, including in the health sector. The ease of information that obtained and disseminated due to the help of the internet makes social media an integral part of our life (Fitriani, 2017).

The existence of social media begins to change the pattern of how news is produced and consumed (Bafadhal, 2017). In the last few years, a lot of news has emerged through



social media platforms (Newman, et al., 2016). This shows that social media that brought by technological advances, provide a world that makes person easier to share information. The Daily Social survey in 2017 stated that out of 1012 respondents, 90.22% of them rely on online media to fulfill their needs of news. One of the social media that has been used for social purposes as well as conveying messages both by individuals and groups is WhatsApp (Bafadhal, 2017).

WhatsApp is an application that allows users to exchange messages using internet data packages (Hartono, 2012; Afnibar & Fajhriani, 2020). The number of WhatsApp users in May 2018 was 1.5 billion and sent as many as 65 billion messages via the WhatsApp application and WhatsApp web per day. A year after being acquired by Facebook, the message traffic generated by WhatsApp users in a day reached 30 billion messages (Ngazis, 2018).

In the past few years, WhatsApp has become the most used instant messaging application. This can be seen from 58% of smartphone users in Indonesia using WhatsApp as their preferred instant messaging application (Bafadhal, 2017). Seeing the various conveniences and benefits offered, it is not surprising that WhatsApp is used by all groups ranging from teenagers, adults, to the elderly (Fitri, 2019). This is also conveyed in research that says WhatsApp application, especially the WhatsApp Group feature, is considered ideal for discussion and information dissemination because it is considered simple and easy to use (Sukrillah, et al., 2017; Rahartri, 2019).

WhatsApp Group allows a reciprocal flow of information that allows users to participate and modify the content of information at that time (Suri, 2019). Users also can easily spread various things, from personal activities, family, business, politics or address the problems that are being faced in the group. This is because they consider other users in the group to be a

homogeneous group. The ease of information that is accessed and disseminated by the public quickly on social media has made most of the Indonesian people tricked and carried away with emotions in the issues that are currently spreading (Rohmiati, 2018).

Current and shocking issues always get public attention with various perceptual reactions and behaviors, including the issue of the Corona Virus Disease 19 (Covid-19) pandemic (Susanty, 2020). Covid-19 is a topic that is currently of concern to the public, considering that Covid-19 is a disease caused by a new virus that attacks the respiratory tract (Indonesian Ministry of Health, 2020). Covid-19 is also a topic that is often shared with the WhatsApp Group (Suri, 2019). The concern felt by the public made the need for information about Covid-19 very important during this pandemic, so they chose to look for information online that was considered fast to be obtained and distributed to others. This worry is what causes the public to be less selective in accepting the distribution of information that is not yet certain (Arriani, et al., 2020).

The spread of incorrect information through group WhatsApp is considered the most vulnerable to occur because most users only forward messages without checking the accuracy of the information (Suri, 2019). In order to prevent the spread of the hoax news related to Covid-19, WhatsApp has launched the Covid-19 Information Center. Even so, the accuracy of information dissemination through the WhatsApp Group is still difficult to control (Koesno, 2020). WhatsApp Group is a private forum, so it will difficult for people in one group with homogeneous thoughts to be exposed to other information, thus making it difficult for government supervision to prevent the spread of hoax news (Bafadhal, 2017). As a result, the dissemination of information through WhatsApp Group, which contains various information causes the formation of public perceptions of something whether it is true or not.

A person's perception can be influenced by internal factors and external factors. Their experiences and interests can also influence a person's perceptions and attitudes (Igiany, 2016). This perception will influence someone before doing something (Igiany, 2018). According to research, information obtained from social media is one of the external factors that can affect a person's perception (Arisana & Ismani, 2012). There are still many people who ignore health protocols to prevent Covid-19 which can also be linked to the perceived risk of the disease (Treayasni, 2020). In addition, the stigma in Covid-19 patients can also arise because of wrong perceptions that are thought by the public. This negative perception arises because the community believes that someone who is infected with Covid-19 must be shunned (Varwati, 2020). Health workers (health workers) also often get unpleasant treatment due to people's perceptions that they are carriers of the virus and can spread it from the hospital to their neighborhood (Ansori, 2020). In fact, due to public perception, rejection of the bodies of Covid-19 patients has also occurred in various regions in Central Java (Azanella, 2020). This study aims to determine the effect of disseminating information through WhatsApp Group on public perceptions about Covid-19.

## II. METHOD

The study was conducted in April – June 2020 used a quantitative approach survey method in Sukoharjo District. The respondents were sampling used quota sampling. The number of respondents was calculated using the Slovin formula ( $n = N / (1 + N.e^2)$ ), and obtained 400 respondents from 902427 populations. The data collected through an online survey, which was distributed via WhatsApp Group. The online survey is advantageous as it can be managed in an efficient way. It is a faster way of getting one's research out to respondents. It is also

convenient as respondents are able to complete surveys in their own time and able to use as much time as they like to read through and respond to the questions (Evans & Mathur, 2005). The questionnaire consists of simple questions about shared information via WhatsApp Group and people's perception of Covid-19. The data conducted was analyzed by a correlation nonparametric test, Spearman Rank Correlation Coefficient used SPSS software.

## III. RESULT

Respondent characteristics that are seen in this study include age, education and occupation. The description of the characteristics of the respondents in this study can be seen in table 1, 2 and 3 below.

**Table I.** The Frequency Distribution Of Respondents' Age

No	Age	Frequency	Percent
1	< 19 years old	51	12.8
2	19-59 years old	347	86.8
3	>59 years old	2	0.5
Total		400	100

Table 1 shows the age distribution of respondents divided into categories, namely <19 years, 19-59 years, and > 59 years. From the research results, it can be seen that the majority of respondents have an age of 19-59 years as much as 86.8%.

**Table II.** The Frequency Distribution Of Respondents' Education Level

No	Educational Level	Frequency	Percent
1	Elementary School	1	0.3
2	Midle School	4	1.0
3	High School	151	37.8



No	Educational Level	Frequency	Percent
4	College	242	60.5
5	Not went to School	2	0.5
Total		400	100

Table 2 shows the distribution of respondents' education from primary school to tertiary education. From the table, it is obtained that the highest level of education of respondents is in college, (60.5%), and the second-highest level of education is graduated from Highschool with a total of 37.8% of the total respondents.

**Table III.** The Frequency Distribution Of Respondents' Job

No	Job	Frequency	Percent
1	Students	132	33.0
2	Teacher/Lecturer	89	22.3
3	Civil Cervant	16	4.0
4	Employee	76	19.0
5	Farmer	1	.3
6	Enterpreneur	37	9.3
7	Housewife	12	3.0
8	Unemployment	37	9.3
Total		400	100

Table 3 shows the results of the distribution of the respondent's work in education. From the research results, the respondents' occupations are very diverse, but the majority of respondents are still students as much as 33%. Meanwhile, respondents who have jobs as educators, both teachers and lecturers, are the second-largest occupation, namely 22.3% and followed by employees as much as 19%.

**Table IV.** Spearman Correlation Between WA Group Information and Perception about Covid-19

No	Variable	P-value	r
1	WA Group Information	0.000	-0.220
2	Perception about Covid-19		

The results of the correlation test of the research variables are shown in Table 4, where the dissemination of information through the WhatsApp group has an influence on respondents' perceptions about Covid-19 which is indicated by a significance value of 0.000. Meanwhile, the correlation coefficient value shows a negative relationship between the dissemination of information through the WA Group and the respondents' perceptions of Covid-19, although it is relatively weak, namely 0.220. This is means that the dissemination of information through the WA Group can affect 22% of respondents' perceptions about Covid-19, and the other 78% are influenced by other factors.

#### IV. DISCUSSION

A smartphone is one of the things that almost everyone has today. The majority of respondents in this study were aged 19-59 years as many as 86.8%. Nearly 65% of Indonesians own a smartphone connected to the internet. The previous survey conducted by the Ministry of Communication and Information shows that people in the age range of 20-59 years are the age group with the highest level of internet use, especially social media reaching 75, 95% at 20-29 years and 68.34% at 30- 49 years, where 41.12% use social media to find information (Ministry of Communication and Information, Republic of Indonesia, 2017). This explains why the majority of study respondents were from the age of 19-59 years.



The majority of social media users according to the Ministry of Communication and Information of the Republic of Indonesia (KOMINFO) are in college and high school education levels. This is in accordance with the age range of social media users in the previous KOMINFO survey (Ministry of Communication and Information, Republic of Indonesia, 2017). The education level of the respondents in this study also shows the same thing, where the majority of the education level has graduated from university, then followed by graduated from high school. As for the work of the research respondents, according to the respondent's age and education, the majority of respondents were students and teachers/lecturers. The KOMINFO survey result also shows that students and employees are in the 3<sup>rd</sup> highest rank of instant messaging users according to the occupation (Ministry of Communication and Information, Republic of Indonesia, 2017). The ease of connecting directly is the main attraction of this messaging application so that WhatsApp users are increasingly heterogeneous and spread out. WhatsApp is not only used by professionals for work but is also used by students and students (Zakirman & Rahayu, 2018).

This research shows that the dissemination of information through the WhatsApp group has an influence on respondents' perceptions about Covid-19. In addition, a negative correlation was also found between the dissemination of information through the WhatsApp Group and the perception of Covid-19, in other words, the more information obtained via the WhatsApp group, the more negative the public's perception is.

WhatsApp is the most popular messaging application for smartphones today (Sihombing & Sugianto, 2018; Ministry of Communication and Information, Republic of Indonesia, 2017). 84.76% of Indonesians use WhatsApp. WA has various advantages, making WA the most potential chat media in sharing information

(Zakirman & Rahayu, 2018). Although various kinds of literature have shown that the need for using WhatsApp is different based on a number of factors such as age and occupation, the most important thing is to seek information (Budree, et al., 2019; Ministry of Communication and Informatics of the Republic of Indonesia, 2017).

In a study conducted by her team, social observers from the University of Indonesia (UI) Rahmawati found that there is a tendency for people to not actively seek information about COVID-19, but get it indirectly, such as from news shared with group chat applications on cellphones such as the WhatsApp Group (Rahmadi, 2020). Information that is very much needed by the public in the current pandemic condition includes the dangers of Covid-19, Covid-19 prevention methods, health protocols, government policies in preventing/overcoming the pandemic and information about social assistance programs provided to the community (Pratama, 2020). This shows that people still need information about Covid-19, even though they passively receive information through the WhatsApp Group. Given the importance of information received by the public, this information needs to be communicated quickly, precisely, and effectively to avoid changing people's perceptions of Covid-19 to become negative (Rahmadi, 2020).

Because of the internet, especially the WhatsApp Group, false information (misinformation) related to a disease can spread from the local level to the global and otherwise at an incredible rate. This Covid-19 misinformation has become a global problem because it can affect people's actions amid conditions where drugs and vaccines against the coronavirus are not yet available. A Director General of the World Health Organization (WHO) Tedros Adhanom Ghebreyesus called this phenomenon of health hoaxes an infodemic (Zarocostas, 2020). WHO states that the COVID-19 outbreak has also caused



an “infodemic”, namely a flood of information, whether accurate or not, which makes it difficult for people to find reliable sources and guidance when they need it (World Health Organization, 2020). In Indonesia, for example, until mid-April, the government had identified more than 500 hoaxes related to COVID-19 on social media (Umah, 2020). Research results conclude that health misinformation can make an outbreak of disease worse. This happens because people who believe this false information tend to make it difficult to handle the outbreak (Bairnard & Haunter, 2020).

There are four factors that influence the spread of false information: the basic instinct to know, modern communication technology, confirmation bias and echo space. The public’s desire to find out something that catches their attention is one of the factors in the easy distribution of false information. This feeling of curiosity is usually accompanied by feelings of fear that the pandemic is beyond their control. As a result, people tend to trust any information they think can save them from infection due to the curiosity that overflows when information is not available to reduce uncertainty and confusion (Douglas, et al., 2017).

Modern communication technology is the second factor in the ease with which hoax news is circulated. One example of technological advances is in sending information, which used to use pulse data, now can use quota data that can be free by connecting to WiFi. In addition, due to modern communication technology, anyone can produce and distribute content. They can easily create and package invalid information and distribute it through social media, such as the WhatsApp Group (Tutiasri, et al., 2019). The information created and disseminated through the WhatsApp Group is certainly different from the information produced by the mass media, because mass media has a code of ethics and data verification, while social media does not have it so that the distribution of information

in the WhatsApp Group is difficult to control (Allcott, et al., 2019).

The third factor is information bias. The ease of accessing information through this technology makes many people inclined to read and disseminate the information they receive without checking the accuracy of the information and news being disseminated. This causes the public to tend to sort information according to their beliefs (Bairnard & Haunter, 2020). The results of research conducted by Judhita (2020) state that someone tends to spread hoaxes because they think that if the news/information is true and useful for others, they get the news/information from someone who can be trusted (Juditha, 2020). The above problems can be exacerbated by a lack of knowledge of the science of infectious diseases so that accurate information is ruled out. One example is the concept of “herd immunity” or herd immunity, which was once echoed as a strategy to overcome the COVID-19 outbreak (Mohsin, 2020).

Apart from these factors, another factor is the echo chamber effect. The last factor reinforces the reason why WhatsApp Group can influence a person’s perception of Covid-19. The WhatsApp Group makes it very easy to create an echo chamber effect because it consists of like-minded people/homogen people. The echo chamber effect is a condition where a person only wants to hear something that is like-minded, to strengthen their attitude (Juditha, 2020).

Perception is one of the psychological aspects that important for humans in responding to the presence of various aspects and symptoms around it, in this case, Covid-19 (Meliza, et al., 2020). The spread of false information can affect public perceptions about Covid-19 which can result in the spread of Covid-19. One example that has happened is that some people who do not really understand this disease are very panicky, but there are also people who still come out with private vehicles and think they are wearing

masks so it is safe anywhere (Lomboan, et al., 2020).

In the process of forming perceptions, there are the main components that influence, namely selection (the process of filtering the senses against external stimuli, intensity, and the like) and interpretation (the process of organizing information so that it has meaning for someone). (Arifin, et al., 2017). As for selection, in this case, it can be said that the public's perception of Covid-19 was formed because of the selection they made on the amount of information that was spread through the WhatsApp Group. After that, they will interpret the information that has been selected into something that they believe is valid, so that it will form a perception about Covid-19 which they think is true.

The four factors of infodemic above cause the information that disseminated on the WhatsApp group can determine how a person's perception is formed. The existence of these four factors makes it increasingly difficult for WhatsApp group users to select correct and valid information, so that the perception of WhatsApp group users is only based on information that he has previously believed to be correct, which is strengthening their perception without knowing the right thing

## V. CONCLUSION

Dissemination of information through the WhatsApp group has an influence on respondents' perceptions about Covid-19. In addition, a negative correlation was also found between the dissemination of information through the WhatsApp Group and the perception of Covid-19, in other words, the more information obtained via the WhatsApp group, the more negative the public's perception is. From the research results, it can be concluded that there is a need for a platform that can provide valid information about Covid-19 to the public. For this reason, we recommend conducting research

on platforms that are in accordance with the information needs of the community.

## VI. ACKNOWLEDGMENT

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