




## The Effectiveness of Leaflet Education Media on Knowledge and Attitudes Regarding Health Protocol During the Covid 19 Pandemic in Canrego Village, South Polongbangkeng District, Takalar District

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ARTICLE INFO	ABSTRACT
<p><b>Article history:</b></p> <p>Received Marct 19, 2024 Revised Aprl 12, 2024 Accepted May 11, 2024</p> <hr/> <p><b>Keywords:</b></p> <p>Attitude; Covid 19; Health Protocols; Knowledge; Leaflet.</p>	<p><b>Background:</b> Since the end of December 2019, the disease known as Covid-19 originated in Wuhan, a city located in China. Animals and humans share this virus. Humans can spread this disease through their respiratory system. Flu, coughs and more severe symptoms from SARS (Severe Respiratory Syndrome) and MERS (Middle East Respiratory Syndrome) are all possible causes. Corona is a new type of disease that originated in China and has just been discovered (WHO, 2019). <b>Research objectives:</b> In South Polongbangkeng village, Takalar Regency, to determine the impact of educational media leaflets on knowledge and attitudes regarding health protocols during the Covid-19 pandemic. <b>sampling and quasi-experimental design with one group design before and after the test were used in the research design and methods.</b> utilized an accidental sampling approach to select a sample of thirty respondents. At a significance level of p 0.05, the Wilcoxon test was used to analyze the data. <b>Research Results:</b> Research findings are based on attitudes about health protocols during the corona disease pandemic and knowledge about health protocols during the COVID 19 pandemic, both before and after the leaflets were distributed to the general public (p = 0.000). <b>Conclusion:</b> In Canrego Village, South Polongbangkeng District, Takalar Regency, the distribution of educational leaflets influenced knowledge and attitudes about health protocols during the Covid 19 pandemic.</p> <p style="text-align: right;"><i>This is an open access article under the <a href="https://creativecommons.org/licenses/by-nc/4.0/">CC BY-NC</a> license.</i></p> <div style="text-align: right;">  </div>

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### 1. Introduction

Covid-19 is a disease that originated in the city of Wuhan, China at the end of December 2019. This virus occurs in humans and animals. This disease can be transmitted and infected through the respiratory tract in humans. Symptoms that can be caused include flu, coughing and the most serious symptoms are SARS (Severe Acute Respiratory Syndrome) and MERS (Middle East Respiratory Syndrome). Covid-19 is a new type of virus that it originally came from China, Wuhan, which was discovered at the end of 2019 (WHO, 2019). Since 2019, December 31 to January 3 2020, the number of incidents has increased significantly. A total of 44 people reported appearing with the same symptoms. Transmission of this disease outside the province to neighboring countries such as Thailand, South Korea and Japan (Huang, C., Wang, Y., Li, X., Ren, L., Zhao, J., Hu, Y., nd2020).

Covid-19 can be transmitted through direct contact and indirect transmission can be obtained from droplets and the respiratory tract. If a person sneezes or coughs on another person, this is direct contact, the risk of transmission can also occur if the distance is less than 1 meter from the patient. Droplets that stick to objects and are touched by other people are transmitted indirectly. Droplets when touched to the eyes, nose and face will cause this virus to enter the body. (Ministry of Health of the Republic of Indonesia., 2020).

Transmission of the virus is caused by symptoms such as dyspnea, fatigue, dry cough and fever. The incubation period is 2-14 days when infected with the virus. This virus can cause the spread of light respiratory infections which can cause complications characterized by acute respiratory distress syndrome, metabolic and hemostasis disorders, septic shock, and can also trigger death. Fatal forms of coronavirus, most of which include acute respiratory infections, can occur in adults or older people and also occur with underlying medical comorbidities (Purimahua et al., 2020).

Currently, the coronavirus is increasing in number, this incident is proven in the data attached from the World Health Organization (WHO). Since June 23 2021, 178,837,204 cases have been confirmed positive, throughout the world 3,880,450 have died (Cucinotta, D. and Vanelli, 2020). In overall WHO data the number is 11.3%, namely elderly people who have been confirmed positive. and 50% have died (Sohrabi, 2020)

Based on data from the Ministry of Health of the Republic of Indonesia (2021) since September 1 2021. In Indonesia, the total confirmed cases were 4,079,267 and deaths were 132,491 (3.2%), those recovered (91.8%) were 3,743,716, active cases ( 5.0%) 203,060. Local transmission was 315 and 510 were affected in City Districts. The highest number of Covid-19 cases in Indonesia occurred in DKI Jakarta Province with confirmed cases of 851,256, East Java 384,374, Central Java 470,278, West Java 384,374, Yogyakarta 150,388 and East Kalimantan 151,235 (Fadlilah et al ., 2022)

Data from the Takalar District Health Service, the number of people confirmed positive for Covid 19 at the beginning of March 2021 was 879 people who recovered and 49 people who died. Based on data from the Canrego Health Center, South Polongbengkeng District, the number of Covid 19 incidents in 2021 is 65 people. 62 people recovered and 3 people died. Meanwhile, in 2022, from January to mid-March, the number of Covid 19 incidents was 19 people. Meanwhile, in Canrego District, the number of confirmed Covid-19 cases in 2020 was 10 people, in 2021 there were 7 people, in 2022 in January to mid-March there were 3 people.

Knowledge about Coronavirus cases is the most important thing so as not to cause an increase in the total number of corona virus outbreaks. Knowledge of clients who are positive for Covid can be interpreted as the result of the client knowing about the disease, how to prevent the disease, understanding the disease, complications and treatment (Devi Pramita Sari & Nabila Sholihah 'Atiqoh, 2020). Apart from experience, attitudes are also influenced by trust, where everyone will have an attitude of compliance with the strategy. If trust is present, the policy will be effective in reducing the transmission of Coronavirus 19. This is in line with the research of Afrianti and Rahmatia (2021), whose research is on the factors that influence community compliance. on the Coronavirus 19 health protocol (Sultan, M. and Aliah, 2021) The results of this research indicate that there are five factors that have a significant relationship with the health protocol, such as knowledge, age, motivation, attitude and education. Then the results of the multivariate analysis have consequently proven that this variable has a real influence on community compliance with health protocols (Revision et al., 2021).

Health education is a way of achieving knowledge and skills whose aim is to improve public and individual health. Educational media is one effort that can be implemented, namely by using leaflet media which is shaped like a paper leaflet containing writing and pictures, which in general is more dominant than the writing (Sabarudin, Mahmudah, R., Ruslin, La, A., Nggawu, LO, Syahbudin, Nirmala, F., Saputri, AI, & Hasyim, 2020). Health Education Media such as brochures, leaflets, comic media and video media. Various studies have proven that leaflet media is effective for conveying information, as a result it can provide understanding and can improve behavior. Leaflet media is a written media that is useful as a promotional or marketing tool to convey health messages using a sheet of paper that has two or more folds (Wulandari et al., 2020).

Based on this background, researchers are interested in conducting research with the title "Effectiveness of Leaflet Educational Media on Knowledge and Attitudes About Health Protocols During the Covid-19 Pandemic in Canrego Village, South Polongbangkeng District, Takalar Regency." The reason for this research is to provide information on health protocols during the Covid-19 pandemic through leaflet educational media. In this case, increasing public knowledge and attitudes towards health protocols during the Covid-19 pandemic. The benefits of providing leaflet media education as a guide for the public to know about health protocols.

## 2. Methods

This type of research is a quasi-experimental method in one group (one group pre test – post test design). To find out whether there is an influence between (independent variable) Media Leaflet Education about Health Protocols and (dependent variable) Knowledge and Attitude, with data collection carried out directly in the Bontonompo Environmental Community, Canrego Village, South Polongbangkeng District, Takalar Regency from June 13 to 13 July 2022 with a total of 30 respondents in this study.

## 3. Results and Discussion

Table 1.  
Description of Respondent Characteristics Based on Age in Canrego Village, South Polongbangkeng District, Takalar Regency, 2022

Respondent description	n	Mean	elementary school	Min-Max
Age (Years)	30	24.77	8,148	17-43

Based on Table 1, it shows that of the 30 respondents the average age of the respondents was 24.77 years with the lowest age being 17 years and the oldest age being 43 years.

Table 2.  
Frequency Distribution of Respondents Based on Characteristics in Canrego Village, South Polongbangkeng District, Takalar Regency, 2022

Respondent characteristics	n	%
Gender		
Man	11	36.7
Woman	19	63.3
Education		
elementary school	3	10
JUNIOR HIGH SCHOOL	8	26.7
SENIOR HIGH SCHOOL	19	63.3
Work		
IRT	9	30
Student	13	43.3
Farmer	1	3.3
Self-employed	7	23.3
Total	30	100

Based on Table 2 above, it shows that of the 30 respondents, for gender there were 19 respondents (63.3%), for high school education there were 19 respondents (63.3%), and for work as a student there were 13 respondents (43.3%).

Table 3.  
Analysis of Differences in Leaflet Education Media on Knowledge About Health Protocols During the Covid 19 Pandemic in Canrego Village, South Polongbangkeng District, Takalar Regency in 2022

Knowledge	n	Mean	Std. Deviation	Std. Error Mean
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Before	30	10.13	3,256	0.594
After	30	17.53	2,529	0.462

Based on table 3, it can be seen that the average value of knowledge before providing leaflet educational media was 10.13 with a standard deviation value of 3.256. Meanwhile, the average value of knowledge after providing leaflet educational media was 17.53 with a standard deviation value of 2.529, meaning that there was an increase in knowledge after being given leaflet educational media regarding health protocols during the Covid 19 pandemic in Canrego Village, South Polongbangkeng District, Takalar Regency.

Table 4.  
Analysis of the Influence of Leaflet Education Media on Knowledge about Health Protocols During the Covid 19 Pandemic in Canrego Village, South Polongbangkeng District, Takalar Regency in 2022

Knowledge	n	Mean	Std. Deviation	Std. Error Mean	$\rho$
Before-After	30	7.40	3,597	0.657	*0,000

Based on table 4, the results of the statistical analysis of the Wilcoxon test show that the average difference between Knowledge before and after giving Leaflet Education Media was 7.40. This means that there was an increase in Knowledge after being given Leaflet Education Media, namely from 10.13 to 17.53. Meanwhile, the value shows the probability value ( $\rho=0.000$ ), which means that if the value ( $\rho=0.000$ )  $\leq \alpha 0.05$  then there is an effect of providing leaflet education media on knowledge about health protocols during the Covid 19 pandemic in Canrego Village, South Polongbangkeng District, Takalar Regency.

Table 5.  
Analysis of Differences in Leaflet Education Media on Attitudes Regarding Health Protocols During the Covid 19 Pandemic in Canrego Village, South Polongbangkeng District, Takalar Regency in 2022

Attitude	n	Mean	Std. Deviation	Std. Error Mean
Before	30	51.13	6,453	1,178
After	30	71.47	6,595	1,204

Based on table 5, it can be seen that the average attitude value before providing leaflet educational media was 51.13 with a standard deviation value of 6.453. Meanwhile, the average attitude value after providing leaflet educational media was 71.47 with a standard deviation value of 6.595, meaning that there was an increase in attitude after being given leaflet educational media regarding health protocols during the Covid 19 pandemic in Canrego Village, South Polongbangkeng District, Takalar Regency.

Table 6.  
Analysis of the Influence of Leaflet Education Media on Attitudes Regarding Health Protocols During the Covid 19 Pandemic in Canrego Village, South Polongbangkeng District, Takalar Regency in 2022

Attitude	n	Mean	Std. Deviation	Std. Error Mean	$\rho$
Before-After	30	20.33	9,697	1,770	*0,000

Based on table 6, the results of the statistical analysis of the Wilcoxon test show that the average difference between attitudes before and after giving leaflet educational media was 20.33. This means that there was an increase in attitude after being given leaflet educational media, namely from 51.13 to 71.47. Meanwhile, the value of  $\rho$  shows the probability value ( $\rho=0.000$ ), which means that if the value ( $\rho=0.000$ )

$\leq \alpha 0.05$  then there is an effect of providing educational leaflet media on attitudes regarding health protocols during the Covid 19 pandemic in Canrego Village, South Polongbangkeng District, Takalar Regency.

Effectiveness of Leaflet Education Media on Knowledge about Health Protocols During the Covid 19 Pandemic in Canrego Village, South Polongbangkeng District, Takalar Regency. The results of the research show that the average value of Knowledge before providing leaflet educational media was 10.13 with a standard deviation value of 3.256. Meanwhile, the average value of knowledge after providing leaflet educational media was 17.53 with a standard deviation value of 2.529, meaning that there was an increase in knowledge after being given leaflet educational media regarding health protocols during the Covid 19 pandemic in Canrego Village, South Polongbangkeng District, Takalar Regency.

The results of the Wilcoxon test statistical analysis show that the average difference between knowledge before and after providing Leaflet Education Media is 7.40. This means that there is an increase in Knowledge after being given Leaflet Education Media, namely from 10.13 to 17.53. Meanwhile, the value of  $\rho$  shows the probability value ( $\rho=0.000$ ), which means that if the value ( $\rho=0.000$ )  $\leq \alpha 0.05$  then there is an influence of providing leaflet educational media on knowledge about health protocols during the Covid 19 pandemic in Canrego Village, South Polongbangkeng District, Regency. Takalar. Knowledge is the result of knowing, this occurs after someone senses an object. Sensing occurs through the five human senses, namely: the senses of sight, hearing, smell, taste and touch. Most human knowledge is obtained through the eyes and ears (Notoatmodjo, 2012). Leaflet media or what is usually called a pamphlet is a practical and effective learning media because it is easy for readers to understand and can be taken anywhere because its practical and simple form is just a sheet containing information or writing and images that attract the reader's interest (Pakpahan M, 2021). The research results show that health education using leaflet media can increase respondents' knowledge in the good category (Purimahua et al., 2020).

According to Nizmah Fajriyah et al., (2021), someone who has no experience at all with an object has a psychology that tends to form negative attitudes. This happens because people understand that Covid-19 is just like the common cold and is not a dangerous disease, so even though they understand that to prevent transmission of Covid-19 you must wash your hands, wear a mask and keep your distance, there are still many people who do not implement health protocols (Nizmah Fajriyah et al., 2021). The results of this research are in line with research by Martini (2020) which stated that there was a significant difference in knowledge before and after health education was carried out using leaflet media with a p value of 0.000 (Martini M, 2020).

Leaflet media can be obtained easily and effectively as a medium of information, the selected image matches the stated achievements, the presence of an attractive image will foster enthusiasm and desire to remember the message relating to the image, the leaflet can be easily carried and read by anyone in a relaxed state, when there is no activity. The quality of leaflet images can help increase knowledge and be easily understood by all levels of society (Maryani & Himalaya, 2021). One source of information in order to prevent the spread of the Covid-19 virus can be using leaflets, this virus can be transmitted between humans via droplets. Someone who often interacts with Covid-19 patients, for example medical personnel, medics and other health workers, is most at risk of being exposed to this viral infection. According to the International Council of Nurses (2020) globally, nurses and midwives are working hard to save the lives of patients with Covid-19 cases, provide comfort to patients when facing death, educate themselves and the community about protective measures and stop the spread of the virus, while still caring for those who are infected (Turale S, Meechamnan C & W., 2020).

Several factors that influence the implementation of health protocols include knowledge, attitudes, and motivation of the community and children towards implementing the Covid-19 health protocol (Afrianti, N., & Rahmiati, 2021). The impact of ignoring health protocols during the Covid-19 pandemic made the spread of the virus spread more rapidly, not only increasing the number of positive patients filling hospital rooms, but also increasing the number of victims who died (Sari, 2021). Solutions for people and children who have ignored health protocols. Regional governments must have a firm

strategy so that the warnings issued can be obeyed by the community and children. So that there is public awareness and their children understand the dangers of COVID-19, continuous outreach needs to be carried out in all regions (Syafriada, 2020). Then also public education to promote a clean lifestyle. This socialization can be done in various ways. Online educational media or using leaflets, especially content on social media, are considered effective media for conveying information to the public and children (Susilawati, 2021).

The results of the research show that the average attitude value before providing leaflet educational media was 51.13 with a standard deviation value of 6.453. Meanwhile, the average attitude value after providing leaflet educational media was 71.47 with a standard deviation value of 6.595, meaning that there was an increase in attitude after being given leaflet educational media regarding health protocols during the Covid 19 pandemic in Canrego Village, South Polongbangkeng District, Takalar Regency. The results of the research show that the average attitude value before providing leaflet educational media was 51.13 with a standard deviation value of 6.453. Meanwhile, the average attitude value after providing leaflet educational media was 71.47 with a standard deviation value of 6.595, meaning that there was an increase in attitude after being given leaflet educational media regarding health protocols during the Covid 19 pandemic in Canrego Village, South Polongbangkeng District, Takalar Regency. The results of the statistical analysis of the Wilcoxon test showed that the average difference between attitudes before and after giving Leaflet Education Media was 20.33. This means that there was an increase in Attitude after being given Leaflet Education Media, namely from 51.13 to 71.47. Meanwhile, the value shows the probability value ( $p=0.000$ ), which means that if the value ( $p=0.000$ )  $\leq \alpha$  0.05 then there is an influence of providing leaflet education media on attitudes regarding health protocols during the Covid 19 pandemic in Canrego Village, South Polongbangkeng District, Takalar Regency.

The respondent's attitude is influenced by the respondent's good knowledge, where someone who already knows about certain information will be able to determine and make decisions about how he should deal with it. In other words, when someone has information about Covid-19, he will be able to determine how he should behave towards Covid-19 (Ahmadi, 2013). Attitudes or behavior are quite closely related to obedience. Behavior is caused by three factors, namely predisposing factors or factors that influence attitudes and beliefs, enabling factors originating from resources and driving factors. This theory studies human behavior from a health perspective which can be used to diagnose health problems and as a health planning tool (Notoatmodjo, 2014). So, if there is a bad attitude, it will greatly affect student compliance in implementing health protocols because compliance refers to a situation when an individual's behavior or attitude is comparable to the actions given or advice proposed by a health practitioner or information obtained from a other sources of information (Ian & Marcus, 2011).

A person's attitude is formed through social processes that occur during their life, where people gain information and experience. This process can take place within the family, school or community. The level of a person's attitude is that they want or pay attention to the stimulus given, which means they are still in the receiving stage, in the responding stage if they do what they are told (Ery Angreyni, 2021). Providing this education can utilize social media as an educational forum. When providing this education, it is necessary to use appropriate communication techniques. According to Berlo's communication theory model, one of the factors that influences the provision of information is communication skills. A message will be easily conveyed if the information provider has good communication skills (Sarjila. 2017). Sarjila's (2017) research shows that in supporting. Communication skills need to use simple language so that people can easily accept the information conveyed. Herbert's (2016) research also states that indirect language styles (euphemisms) in health communication can reduce people's understanding of an existing disease or condition (Nizmah Fajriyah et al., 2021).

This research is in line with that conducted by Zhou P, Yang , this was shown in research conducted by Peng, et all (2020) which showed that the highest percentage of knowledge was in the good category (51.35%) followed by the highest percentage of attitudes in the good attitude category (46.39%). According to social psychology, attitudes are closely related to a person's level of knowledge. A person's attitude towards an object shows that person's knowledge of the object in question (Ery Angreyni, 2021). This research is in line with research conducted by Mushidah and Ratna Muliawati (2020),

that there is a relationship between the level of knowledge and attitudes about Covid-19 and the level of compliance with wearing masks based on a p value of 0.000. The researcher's assumption is that a good attitude and high knowledge will also provide good results, but non-compliance with health protocols can occur due to many factors that influence it, such as environmental factors, the absence of health protocol checks, so that people only know but do not comply.

#### 4. Conclusion

The description of Knowledge about Health Protocols before being given leaflet education media during the Covid 19 Pandemic in Canrego Village, South Polongbangkeng District, Takalar Regency, namely good knowledge before Leaflet Education was 8 respondents (26.7%) and 22 respondents (73.3%) had poor knowledge. (%). The description of Knowledge about Health Protocols after being given educational leaflets during the Covid 19 Pandemic in Canrego Village, South Polongbangkeng District, Takalar Regency, namely after being given Educational Leaflets, good knowledge was 29 respondents (96.7%) and poor knowledge was 1 respondent. (3.3%). The description of attitudes regarding health protocols before being given leaflet educational media during the Covid 19 pandemic in Canrego Village, South Polongbangkeng District, Takalar Regency is known, namely positive attitudes before leaflet education, namely 7 respondents (23.3%) and negative behavior, namely 23 respondents (76, 7%). The description of attitudes regarding health protocols after being given educational media leaflets during the Covid 19 pandemic in Canrego Village, South Polongbangkeng District, Takalar Regency was known, namely positive attitudes, namely 29 respondents (96.7%). And negative attitudes were 1 respondent (3.3%). The influence of Leaflet Education Media on Knowledge about Health Protocols During the Covid 19 Pandemic in Canrego Village, South Polongbangkeng District, Takalar Regency, is known, with a value of  $p = 0.000$ . The influence of leaflet education media on attitudes regarding health protocols during the Covid 19 pandemic in Canrego Village, South Polongbangkeng District, Takalar Regency is known, with a value of  $p = 0.000$ .

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