



The Effect of Health Education on the Level Of Knowledge and Attitude Of Mothers About COVID-19 Prevention at Posyandu of Mpunda Public Health Center of Bima City



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Abstract

Background of Study: Transmission of COVID-19 is made through close contact and saliva splashes/droplets, instead of air transmission. Baby is one of the most vulnerable subjects to any kind of disease due to their body's immune is still likely weak or imperfect. Providing insights on the importance of maintaining health and the danger of COVID-19 virus is necessary to conduct through some informal educational platforms to the society. Method: the research method used in the present study was quasi-experiment with pre-test and post-test with a control group design. The sampling technique used was random sampling. In this study, a bivariate test was conducted to find out the effect and difference in the level of knowledge and attitude of both the control group and experimental group. The present study, further, used the statistical test of Mann Witney and Wilcoxon Signed Rank Test. Result: The analysis result of the mothers' knowledge using the Mann Witney test obtained a p-value of 0.0225 by which since $p < \alpha$ (0.05), then it was revealed that there was a significant difference between the education counseling with video as well as a booklet and only using the booklet to improve the mothers' knowledge on the COVID-19 prevention at POSYANDU of MPUNDA Public Health Center of Bima City. Conclusion: The use of video and booklet is deemed more effective in improving the mothers' knowledge on COVID-19 prevention at POSYANDU of MPUNDA Public Health Center of Bima City compared to that only using.

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1 Introduction

In early 2020, the world was shocked by a coronavirus (COVID-19) outbreak which had a fast infection transmission day by day and spread across the globe. Even since January 2020, WHO had declared that the world was in a global emergency due to this virus. The number of COVID-19-positive patients throughout the world in August 2020 reached 19,805,851 people with a number of deceased patients reaching 729,591 (3.68%) people (WHO, 2020). In Indonesia, the authority that handles COVID-19, in this case, the COVID-19 Handling Task Force of the Ministry of Health, noted that as of August 8, 2020, positively confirmed COVID-19 patients reached 123,503 people with a recovery rate of 79,306 people (64.21%) and 5,658 deaths (4.58%) people (Kementian Kesehatan Republik Indonesia 2020) NTB on August 14, 2020, with the addition of 22 new confirmed positive cases, 15 additional new recoveries, and 2 new deaths, the number of positive COVID-19 patients in NTB province was 2,420 people, with further details 1,628 people have recovered, 134 died, and 658 people were still positive (Fitriani, 2011; Gunarsa, 2000).

Coronaviruses (CoV) are part of a family of viruses that cause illness with various symptoms ranging from the flu to more severe diseases such as those of Middle East Respiratory Syndrome (MERS-CoV) and severe acute respiratory syndrome (SARS-CoV). The disease caused by the coronavirus, widely known as COVID-19, is a new type that was discovered in 2019 in Wuhan and has never been identified to attack humans before (Widiyani, 2020). Coronavirus is transmitted between animals and humans (*zoonosis*). Research suggests that SARS was transmitted from *civet cats* to humans and MERS from camels to humans. The animal that is the source of COVID-19 transmission is still unknown (Kementian Kesehatan Republik Indonesia 2020). Transmission of COVID-19 is made through close contact and saliva splashes/droplets, instead of air transmission. People who are at risk of infection are those who are in close contact with people who are positive for COVID-19. However, groups at high risk of being infected with the COVID-19 virus include the elderly, people with chronic diseases, smokers, and people with weak immune systems. Baby is one of the most vulnerable subjects to any kind of disease due to their body's immune is still likely weak or imperfect. Preventive action is the key to implementation in health and community services. Prevention steps in the community include washing hands using hand sanitizer if hands don't look dirty, washing hands with soap and running water if hands look dirty and using masks when doing outdoor activities, and physical distancing (Kusumaningtyas et al., 2017; Law et al., 2020).

Providing an understanding of the importance of maintaining health and the dangers of the COVID-19 virus needs to be done. A non-formal education platform is needed to help provide understanding or education about COVID-19 to the public, one of the forums that play a very important role is Integrated Healthcare Center (POSYANDU). It provides motivation and invites mothers of toddlers to always go to the POSYANDU once a month. POSYANDU activities as a community learning facility to increase knowledge and attitudes should have become a routine activity in the community. POSYANDU as a non-formal education forum where POSYANDU is also a learning group in the community, these learning groups can occur during POSYANDU activities, POSYANDU cadres are referred to as facilitators and POSYANDU members as students, facilitators function as motivators, counseling officers, and health services (Sulistiadi et al., 2020; Ahmad Susanto, 2018).

The results of previous research Nurdin et al. (2019) stated that there was a correlation between knowledge, work, motivation, and the role of cadres with the participation of mothers under five to visit POSYANDU. Therefore, the health service authority in this case Public Health Center (puskesmas) must encourage POSYANDU to be active in health services for infants and toddlers by paying attention to the health protocols. This must be a concern since infants and toddlers are one of the most vulnerable and very easily exposed to the COVID-19 virus. Some cases of Coronavirus infection in infants have also been found. Therefore, preventive measures need to be taken to reduce the risk of transmitting the Coronavirus to infants. Giving immunizations, weighing babies, and monitoring developments in infants and toddlers are very important to monitor the growth and development of toddlers, so the POSYANDU activities are still carried out. Puskesmas, heads of RW and RT as well as PKK can provide socialization to the public that health services for infants and toddlers at POSYANDU will continue to be carried out by implementing protocols for preventing the spread of COVID-19, say, for example, when they participate in POSYANDU activities, they must wear masks and other health procedures. This needs to be done because based on data obtained at the Bima Regional General Hospital, the number of confirmed COVID-19 patients was 55 patients, but this data did not include ODP and PDP data. With the increase in statistical data on COVID-19 disease, it is necessary to conduct Health Education to the public about COVID-19 because infants and toddlers are very vulnerable to contracting the virus (Trouillet-Assant et al., 2020; Ndwandwe & Wiysonge 2021).

2 Research Methods

The research method used in the present study was quasi-experiment with pre-test and post-test with a control group design. This design attempts to reveal a causal relationship by involving the control group in addition to the experimental group. The experimental group was given treatment while the control group was not and both groups were given pre-test and post-test. The sample in this study were all mothers who had babies and toddlers included in the POSYANDU activities at the Mpunda Health Center and in accordance with the research criteria. The number of samples in this study was calculated by the formula for the size of the sample according to [Dipiro et al. \(2008\)](#). The tool used to measure the level of knowledge in the form of a questionnaire adapted from the World Health Organization in Indonesia (WHO n.d.). Data analysis in this study used univariate analysis which included data such as age, education level, and occupation. In addition, the univariate test on mothers' knowledge and attitudes about preventing COVID-19 as well as a bivariate test was carried out in this study to determine the effect and differences in the level of knowledge and attitudes both in the control group and the treatment group. The present study, further, used the statistical test of Mann Witney and Wilcoxon Signed Rank Test ([Cook & Flay, 1978](#); [Roy et al., 2020](#)).

3 Results and Discussions

Result of Univariate Test

In this univariate analysis, the conditions and characteristics of the respondents are described as follows:

Table 3.1
Distribution of Respondents' Frequency by Occupation of the Intervention Group

No	Occupation	Frequency	Percentage
1	Housewife	30	60
2	Civil Servant	10	20
3	Merchant	6	12
4	etc.	4	8
	Total	50	100%

Based on the results of table 3.1 above, out of the 50 respondents, most respondents' occupations were housewives which are 60%.

Table 3.2
Distribution of Respondents' Frequency Based on Control Group Occupation

No	Occupation	Frequency	Percentage
1	Housewife	30	60
2	Civil Servant	9	18
3	Merchant	9	18
4	etc.	2	4
	Total	50	100%

Based on the results of table 3.2 above, out of the 50 respondents, most respondents' occupations were housewives which are 60%.

Table 3.3
Distribution of Respondents' Frequency of Intervened Group Based on Age

No	Age	Frequency	Percentage
1	23-27 years old	9	18.0
2	28-32 years old	22	44.0

3	33-37 years old	14	28.0
4	>37 years old	5	10.0
	Total	50	100%

Based on the results of table 3.3 above, out of the 50 respondents, the most respondents' age range was 28-30 years old which is 44.0%.

Table 3.4
Distribution of Respondents Frequency of Control Group Based on Age

No	Age	Frequency	Percentage
1	23-27 years old	14	28.0
2	28-32 years old	24	48.0
3	33-37 years old	10	20.0
4	>37 years old	2	4.0
	Total	50	100%

Based on the results of table 3.4 above, out of the 50 respondents, most respondents' age range was 28-30 years old which is 48.0%.

Table 3.5
Frequency Distribution of Respondents in the Intervention Group Based on Knowledge (pre)

No	Knowledge	Frequency	Percentage
1	Good	26	52.0
2	Poor	24	48.0
	Total	50	100%

Based on the results of table 3.5 above, out of the 50 respondents, those who had good knowledge are 52.0%, and those who had poor knowledge are 48.0%.

Table 3.6
Frequency Distribution of Respondents in the Control Group Based on Knowledge (pre)

No	Knowledge	Frequency	Percentage
1	Good	23	46.0
2	Poor	27	54.0
	Total	50	100%

Based on the results of table 4.6 above, out of the 50 respondents, those who had good knowledge are 46.0%, and those who had poor knowledge are 54.0%.

Table 3.7
Frequency Distribution of Respondents in the Intervention Group Based on Knowledge (pre)

No	Knowledge	Frequency	Percentage
1	Good	44	88.0
2	Poor	6	12.0
	Total	50	100%

Based on the results of table 3.7 above, out of the 50 respondents, those who had good knowledge are 88.0%, and those who had poor knowledge are 12%.

Table 3.8
Frequency Distribution of Respondents in the Control Group Based on Knowledge (pre)

No	Knowledge	Frequency	Percentage
1	Good	42	84.0
2	Poor	8	16.0
	Total	50	100%

Based on the results of table 3.8 above, out of the 50 respondents, those who had good knowledge are 84.0%, and those who had poor knowledge are 16%

Table 3.9
Frequency Distribution of Respondents in the Intervention Group Based on Attitude (pre)

No	Attitude	Frequency	Percentage
1	Good	27	54.0
2	Poor	23	46.0
	Total	50	100%

Based on the results of table 3.9 above, out of the 50 respondents, those who had a good attitude are 54.0%, and those who had a poor attitude are 46.0%

Table 3.10
Frequency Distribution of Respondents in the Control Group Based on Attitude (pre)

No	Attitude	Frequency	Percentage
1	Good	28	56.0
2	Poor	22	44.0
	Total	50	100%

Based on the results of table 3.10 above, out of the 50 respondents, those who had a good attitude are 56.0%, and those who had a poor attitude are 44.0%

Table 3.11
Frequency Distribution of Respondents Based on Attitude (Post)

No	Attitude	Frequency	Percentage
1	Good	4	8.0
2	Poor	46	92.0
	Total	50	100%

Based on the results of table 3.11 above, out of the 50 respondents, those who had a good attitude are 92.0%, and those who had a poor attitude are 8.0%

Table 3.12
Frequency Distribution of Respondents Based on Attitude (Pre)

No	Attitude	Frequency	Percentage
1	Good	38	76.0
2	Poor	12	24.0
	Total	50	100%

Based on the results of table 4.12 above, out of the 50 respondents, those who had a good attitude are 76.0%, and those who had a poor attitude are 24.0%

Result of Data Analysis
Data Normality Test

Table 3.9
Result of Data Normality Test

		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	Df	P Value	Statistic	df	P value
Pre_knowledge	Control	0.167	50	0.001	0.946	50	0.023
	Intervention	0.166	50	0.001	0.0914	50	0.001
Post_knowledge	Control	0.115	50	0.098	0.931	50	0.006
	intervention	0.180	50	0.000	0.937	50	0.010
Pre Attitude	Control	0.177	50	0.000	0.921	50	0.003
	intervention	0.155	50	0.004	0.954	50	0.049
Post Attitude	Control	0.194	50	0.000	0.868	50	0.000
	intervention	0.195	50	0.000	0.873	50	0.000

The results of the data normality test using that of Shapiro Wilk showed the significant value of the variable was less than 0.05, so it was concluded that the data distribution was not normal. The abnormal data distribution then encouraged the researchers the data analysis of Wilcoxon.

Data Analysis

Table 3.13
Differences in mothers' knowledge about prevention of COVID-19 before and after being given education in the intervention group (instruction with videos and booklets)

Knowledge	n	Mean	Mean difference	SD	Z Value	value
Pre Education	50	65.80	8.9	11.174	-6.118	0.000
Post Education	50	84.70		7.313		

Based on table 3.13 above, in the intervention group, it was found that there was an increase in the average knowledge of mothers after being provided with education compared to before being given education as many as 18.9, with an average knowledge of 65.80 at the time before provided with health education increased to 84.70 after being given health education. The results of the bivariate analysis using the Wilcoxon test obtained a p-value = 0.000, since the value was $p < \alpha$ (0.05), then there was likely a difference in mothers' knowledge about preventing COVID-19 before and after being given education in the intervention group.

Table 3.14
Differences in mothers' Attitudes about prevention of COVID-19 before and after being given education in the intervention group (instruction with videos and booklets)

Attitude	n	Mean	Mean difference	SD	T value	P value
Pre Education	50	65.20	1	16.443	-15,560	0.000
Post Education	50	86.20		9.875		

Based on table 3.14 above, in the intervention group, it was found that there was an increase in the average attitude of mothers after being provided with education compared to before being given education as many as 21, with an average knowledge of 65.20 at the time before provided with health education increased to 86.20 after being given education. The results of the bivariate analysis using the Wilcoxon test obtained a p-value = 0.000, since the value

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was $p < \alpha$ (0.05), then there was likely a difference in the mothers' attitude about preventing COVID-19 before and after being given education in the intervention group.

Table 3.15
Differences in mothers' knowledge about prevention of COVID-19 before and after being given education in the Control group (booklets)

Knowledge	n	Mean	Mean difference	SD	Z Value	P value
Pre Education	50	65.00	5	10.252	-6.127	0.000
Post Education	50	80.50		10.797		

Based on table 3.15 above, in the intervention group, it was found that there was an increase in the average knowledge of mothers after being given education compared to 15 before being given education, with an average knowledge of 65.00 at the time before being given education, increasing to 80.50 after being given education. The results of the bivariate analysis using the Wilcoxon test and obtained p value = 0.000, because the value of $p < \alpha$ (0.05), then there is a difference in mothers' knowledge about preventing COVID-19 before and after being given education in the control group.

Table 3.16
Differences in mothers' Attitude about prevention of COVID-19 before and after being given education in the Control group (booklets)

Attitude	N	Mean	Mean difference	SD	Z Value	P value
Pre Education	50	66.80	14	14.630	-5.509	0.000
Post Education	50	80.80		14.686		

Based on table 3.16 above, in the intervention group, it was found that there was an increase in the average attitude of mothers after being given education compared to 14 before being given education, with an average knowledge of 65.00 at the time before being given education, increasing to 80.10 after being given education. The results of the bivariate analysis using the Wilcoxon test obtained a p -value = 0.000 because the $p < \alpha$ value (0.05), then there are differences in mothers' attitudes about preventing COVID-19 before and after being given education in the control group.

Table 3.17
Differences in the effectiveness of education with booklets, videos, and booklets without education on mothers' knowledge in preventing COVID-19

Knowledge	N	Mean	Median	SD	Z Value	P value
Intervention Group	50	4.70	85.00	7.313	-2.005	0.0225
Control Group	50	0.50	80.00	10.797		

Based on table 3.17 above, it was found that the average value of the mothers' knowledge in the intervention group was greater than the average knowledge in the control group, which was 4.2, with an average knowledge of 84.70 in the intervention group while the average knowledge in the control group was 80.50 control with the difference in the median value was 5. The analysis result of bivariate using Mann Witney test obtained a p -value of 0.0225 by which since $p < \alpha$ (0.05), then it was revealed that there was a significant difference between the education counseling with video as well as a booklet and only using the booklet to improve the mothers' knowledge on the COVID-19 prevention at POSYANDU of MPUNDA Public Health Center of Bima City.

Table 3.18
Differences in the effectiveness of education with booklets, videos, and booklets without education on mothers' Attitude toward preventing COVID-19

Attitude	n	Mean	Median	SD	Z Value	P value
Intervention Group	50	86.20	90.00	9.875	-1.627	0.052
Control Group	50	80.80	80.00	14.686		

Based on table 3.18 above, it was found that the average value of the mothers' attitude in the intervention group was 5.4 greater than the average knowledge in the control group, with an average knowledge of 86.20 in the intervention group, while the average knowledge in the control group was 80.80 with a median difference of 10. The analysis result of bivariate using Mann Witney test obtained a p-value of 0.05 by which since $p < \alpha$ (0.05), then it was revealed that there was no difference in the effectiveness of using video education as well as a booklet and only using the booklet to improve the mothers' Attitude on the COVID-19 prevention at POSYANDU of MPUNDA Puskesmas of Bima City.

4 Discussion

Descriptions and Differences in Average Knowledge Values About COVID-19 Prevention in the Control Group

The results of the analysis showed that knowledge about COVID-19 prevention before media was given to the control group was 65.00 and after being given media to the control group was 80.50 with a mean difference of 15 with a P value of 0.000 ($p = \alpha = 0.05$) stated that there was a difference in knowledge about COVID-19 prevention before and after being provided with the media booklet. This shows that the provision of counseling and distribution of booklets had an effect on the mothers' knowledge. In this case, the mothers' knowledge increased even though she was only given a booklet for independent learning. Many factors influence changes in one's knowledge, one of which is the age which shows the nature of thinking that is mature and has the mentality to learn and adapt to new situations (Sihite et al, 2020). The increase in knowledge occurred because the respondents were enthusiastic about this health education. This is in line with the theory of Notoatmodjo (2012), suggesting that knowledge is the result of "knowing" from a person and this occurs after people have sensed a certain object. Knowledge or cognition is a very important domain for the formation of one's actions. There were still respondents who had post-test scores below the average due to respondents who did not read the booklets that had been given and the respondents' memories were different (Calderhead, 1989; Vesper & Gartner, 1997).

Descriptions and Differences in the Average Value of Mothers' Knowledge about COVID-19 Prevention in the Intervention group

The results of the analysis showed that knowledge about COVID-19 prevention before media was given to the intervention group was 65.80 and after being given media to the control group was 84.70 with a mean difference of 18.9 with a P value of 0.000 ($p = \alpha = 0.05$) stated that there was a difference in knowledge about COVID-19 prevention before and after being provided with the media booklet. The analysis carried out showed that there was a significant change between knowledge scores before and after being given counseling and distributing booklets to mothers (intervention group) in the working area of the MPunda Public Health Center, Bima City. The results of this study are in line with research conducted by Simanjuntak (2019) research which shows that there is a significant difference between knowledge, attitudes, and family actions in the early detection of mental health of school-age children before and after the provision of health education, with a knowledge significance value = 0.000, attitude = 0.000 and action = 0.001 and it is concluded that there is an effect of health education on family knowledge, attitudes, and actions in early detection of mental health of school-age children in Sunggal Village, Medan City (Simanjuntak, 2019). Another study conducted by Sihite et al. (2020), stated that the older a person is, the more his grasping power and mindset will develop so that the knowledge gained is getting better.

Descriptions and Differences in Mothers' Average Attitudes about COVID-19 Prevention in the Control Group

The results of the analysis showed that knowledge about COVID-19 prevention before media was given to the control group was 66.8 and after being given media to the control group was 80.80 with a mean difference of 14 with a P value of 0.000 ($p = \alpha = 0.05$) stated that there was a difference in knowledge about COVID-19 prevention before and after being provided with the media booklet. Attitudes can not be seen directly but can only be estimated beforehand from some behavior. The existence of a positive or supportive attitude can be caused by knowledge and experience. Increased knowledge has a positive relationship with behavior change, which will later be implemented in behavior. Where there is an increase in knowledge, there is a change in behavior and a change in behavior can cause a change in attitude (Amalia, 2018).

Descriptions and Differences in Mothers' Average Attitudes about COVID-19 Prevention in the Intervention group

The results of the analysis showed that knowledge about COVID-19 prevention before media was given to the control group was 65.20 and after being given media to the control group was 86.20 with a mean difference of 21 with a P value of 0.000 ($p = \alpha = 0.05$) stated that there was a difference in knowledge about COVID-19 prevention before and after being provided with the media booklet and video instruction. Attitudes of each individual can be different, if they like or agree with an object, they will approach, find out, and join, on the other hand, if they don't like or disagree, they will avoid or stay away (Edyati & Khusnal, 2014). In accordance with the purpose of providing health care to make the whole community aware of the importance of maintaining health, knowing how to prevent health problems, and going to treatment facilities if they are not healthy (Windasari, 2015).

Differences in the Effectiveness of COVID-19 Prevention Education on knowledge and attitudes of mothers in the control group and the intervention group

- a) The results of the analysis showed that the average value of mothers' knowledge in the intervention group was greater than the average knowledge in the control group, which was 4.2, with an average knowledge of 84.70 in the intervention group while the average knowledge in the control group was 80.50 control with the difference in the median value was 5 (Intriago et al., 2020; Wartawan, 2017).

The analysis result of bivariate using Mann Witney test obtained a p-value of 0.0225 by which since $p < \alpha$ (0.05), then it was revealed that there was a significant difference between the education counseling with video as well as a booklet and only using the booklet to improve the mothers' knowledge on the COVID-19 prevention at POSYANDU of MPUNDA Public Health Center of Bima City. This research is in line with that conducted by Imran (2017). Before conducting personal hygiene health education using video media, most of the respondents had a level of knowledge in the sufficient category, as many as 31 respondents (86.1%). A research conducted by Kholishah & Wahyuni (2017) also showed the same thing, that before being given health education treatment with video media, most of the respondents were in the poor category as many as 46 children (95.5%). According to Notoatmodjo (2012), knowledge is the result of knowing and this occurs after people have sensed a certain object. One of the efforts that can be used to increase one's knowledge is by conducting health education. Health education can increase knowledge, and change awareness, and behavior so that people or communities participate in improving health status.

The results showed that respondents' knowledge had increased after being given health education with video and booklet media. The researcher argues, that in addition to being given material in the form of booklets, video media is also an appropriate and interesting health education in conveying information and can affect the results of health education. Booklets are intended so that respondents can re-learn by reading and understanding, while video media displays moving images, writing, and sound explaining the images displayed so that they can attract the attention of health education targets. Video media displays materials in a concise, clear, and easy to understand, this can facilitate understanding and strengthen the respondent's memory. By using video media, learning becomes more varied, interesting, and fun. The implementation time of video playback also does not take a long time, all messages can be conveyed and can be received by respondents. This was proven when the health education process took place, the respondents were enthusiastic and paid attention to the video shown by the researcher (Gansevoort et al., 2013; Seto et al., 2003).

A theory suggested by Mubarak et al. (2011), states that video media in the learning process can increase student motivation and learning outcomes because it has the ability to explain something complicated or

complex through audio-visual stimuli which ultimately produces better results. Learning by utilizing video media can make effective, fun, and non-boring learning to speed up the process of delivering material to students. The advantages of video media are that it makes it easier for teachers to present information has attractiveness and interactivity. Health education with booklet media can be read repeatedly and videos can be played and captured by involving various senses, such as sight and hearing. The more senses you use, the easier it will be for information to be grasped. This is in line with a theory suggested by Listyarini (2017), stating that approximately 75%-87% of a person increases his knowledge by seeing or obtaining from the five senses. A theory suggested by Maulana (2014) also says the same thing, that the five senses that transmit the most knowledge to the brain are the eyes (about 75%-87%), while 13%-25% of human knowledge is obtained and channeled through the other senses.

- b) The difference was found that the average value of maternal attitudes in the intervention group was 5.4 greater than the average knowledge in the control group, with an average knowledge of 86.20 in the intervention group, while the average knowledge in the control group was 80, 80 with a median difference of 10. The analysis result of bivariate using Wilcoxon test obtained a p-value of 0.052 by which since $p < \alpha$ (0.05), then it was revealed that there was no difference in the effectiveness of using video education as well as a booklet and only using the booklet to improve the mothers' Attitude on the COVID-19 prevention at POSYANDU of MPUNDA Puskesmas of Bima City. The results of the study are in line with those of Nugroho (2018), namely, the intervention given using comic nutrition media has no effect on changes in the weight of obese children, which is shown with a p-value of 0.4921 for the treatment group and 0.725 for the control group.

According to Aeni et al. (2015), the mass media has a close relationship with the formation of knowledge and attitudes. The mass media carry messages that contain information that can direct one's opinion. The existence of new information about something provides a new cognitive foundation for the formation of knowledge and attitudes (Puspitasari Indriana Widya et al., 2017). The use of media in health education has the purpose of raising attention to a problem and reminding the information conveyed so that it causes changes in knowledge and attitudes. Media, such as videos or booklets, are deemed effective for health education for mothers.

5 Conclusion

The use of videos and booklets is more effective in increasing knowledge of mothers' knowledge about COVID-19 prevention in the work area of the Mpunda Health Center, Bima City, and attitudes compared to only using the booklets and conducting health promotion activities on a regular basis to increase knowledge and attitudes about preventing COVID-19 (Meng et al., 2020; Roy et al., 2020).

Conflict of interest statement

The authors declared that they have no competing interest.

Statement of authorship

The authors have a responsibility for the conception and design of the study. The authors have approved the final article.

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