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The Effect Of Giving *Health Education* With Tik Tok Video Media On The Knowledge Of Prevention And Handling Of Children With Pneumonia In The Posyandu Of Mojoroto Village Kediri City

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ABSTRACT

Pneumonia is a respiratory disorder that is the leading cause of death for children under five years old worldwide, so prevention is an important component of the strategy to reduce mortality. By carrying out preventive strategies in the form of *health education* well, it is hoped that the incidence of *pneumonia* can be minimized. The success of health education is inseparable from things related to learning, one of which is the use of *video* media. This study aims to determine the effect of providing *health education* with *tik tok video* media on the knowledge of prevention and handling of children with *pneumonia*. This type of research uses a *pre-experimental* approach with a *one group pre-test post-test design* and *probability sampling of* 99 respondents. This study was conducted on July 15, 2024 using a questionnaire. Data analysis using *paired sample t-test* with $\alpha = 0.05$ with the results obtained an increase in the *mean* value on knowledge of prevention of 4.8 and handling of 1.8 with a *p-value* on prevention of 0.000 and handling of 0.002 which concluded that H_0 was rejected, which means that there is an effect of providing *health education* with *tik tok video* media on knowledge of prevention and handling of children with *pneumonia. Health education* through *TikTok video* media is an effective way to provide knowledge. Easy access to media at any time and can be played repeatedly, making a person fully understand the concepts conveyed to improve their cognitive abilities.

Keywords: Health Education, Knowledge, Tiktok Video, Handling, Prevention, Children, Pneumonia.

1. INTRODUCTION

Pneumonia is an inflammation of the lung parenchyma with consolidation of the alveolar space. The cause of pneumonia comes from bacteria, viruses and *microorganisms* such as *Streptococcus pneumoniae*, *Haemophilus influenza, Mycoplasma pneumonia* and so on. The symptoms of this disease are rapid breathing and shortness of breath, because the lungs become inflamed suddenly. The limit of rapid breathing is a respiratory frequency of 50 times per minute or more in children aged 2 months to less than 1 year, and 40 times per minute or more in children aged 1 year to less than 5 years (Kurniawan, Raramiranda and Napirah, 2020)

Pneumonia is the leading killer of children under five in the world, more than AIDS, malaria and measles combined. It accounts for 19% of all under-five deaths, followed by diarrhea at 17%, so the *World Health Organization* (WHO) calls it *pneumonia is the leading killer of children worldwide*. Every year in the world it is estimated that more than 2 million children under five die from pneumonia (1 toddler/20 seconds) out of 9 million total deaths of children under five. Among the five deaths of children under five, one is caused by pneumonia, but there is not much attention to this disease so pneumonia is also called the forgotten killer *of children* (Kurniawan, Raramiranda and Napirah, 2020)

Based on the Indonesian Health Profile in 2021, there were 278,261 under-fives in Indonesia suffering from pneumonia (Farisa *et al.*, 2023) . East Java has the highest number of under-five pneumonia patients in Indonesia with 74,071 cases of pneumonia in under-fives in 2021. East Java ranked seventh in the number of deaths due to pneumonia in children under five in Indonesia with 25 deaths in 2021. Seeing the high number of pneumonia cases in children under five, it is necessary to make efforts to address the problem. One of the efforts that can be made to reduce the high number of pneumonia cases in children under five is to know the causes of pneumonia, and to increase mothers' knowledge of pneumonia (Farisa *et al.*, 2017)., 2023)

One of the factors causing pneumonia is the level of maternal knowledge, based on research (Puspitasari and Fitriahadi, 2018) the higher the level of maternal knowledge, the better the prevention of pneumonia and the more knowledge mothers have about pneumonia, the lower the morbidity and mortality rates of pneumonia in toddlers. Meanwhile, mothers who do not have sufficient knowledge about pneumonia will underestimate and even not support efforts to prevent pneumonia, leading to higher rates of pneumonia morbidity and mortality in children under five years of age (Rusnedy *et al.*, 2020)

The impact caused if a child has pneumonia is that the child has difficulty breathing this is due to the accumulation of fluid or pus in the alveoli, besides that children who

experience pneumonia also experience a decrease in the ability of the lungs to expand so that children experience rapid breathing. If not properly managed pneumonia can cause death in children due to hypoxic conditions (Puspitasari and Fitriahadi, 2018)

One of the efforts that can be made to improve community knowledge is counseling providing *health education*. Research (Puspitasari and Fitriahadi, 2)018 counseling activities involve the activities of listening, talking, and seeing, so the use of appropriate methods is needed to help deliver information effectively in accordance with the objectives. The results showed that respondents' knowledge after being given health education about pneumonia in toddlers and how to prevent it increased significantly.

Based on a preliminary study conducted at Posyandu Mojoroto through interviews with 10 mothers of toddlers, it was found that 8 mothers did not know how to prevent and treat children with pneumonia. As well as mothers of toddlers already have TikTok media accounts, and researchers took preliminary data that had been conducted by researchers in the Mojoroto Health Center area that the Mojoroto Village area ranked 2nd, with a percentage of 201.5% of children with pneumonia in Kediri City.

Based on the description above, the researcher is interested in knowing the effect of providing *health education* on the knowledge of prevention and handling of children with pneumonia at the Posyandu Mojoroto Village, Kediri City.

1. **Comparison of Knowledge of Prevention of Children with *Pneumonia* before and after Providing *Health Education* with *Tik Tok Video* Media at Posyandu Mojoroto Village,**

2. METHODS

This study uses a research design This study uses a quantitative approach with a *Pre-Experimental Pre-Post Test* research design without a control group. With *probability sampling* technique, a sample of 99 respondents was obtained. The independent variable was the provision of *health education* with *TikTok video* media and the dependent variable was the level of knowledge of mothers of children under five on the prevention of pneumonia, the level of knowledge of mothers of children under five on the handling of pneumonia with a questionnaire. *The Paired Sample T - Test* statistical test was used, first seen is the distribution of normality tests using the *Shapiro-Wilk* normality test. to determine the relationship between the two variables. Analysis using the *Paired Sample T - Test* statistical test obtained the results of p = 0.000 <0.05, so H0 is rejected and H1 is accepted, which means that there is an average difference between pre-test and post-test knowledge of prevention and handling, which means that there is an effect of providing health education with video media tik tok at the Mojoroto Village Posyandu, Kediri City.

3. RESULTS

Variable Characteristics

The independent variable in the study entitled "The Effect of Providing *Health Education* with *Tiktok* Video Media on Knowledge of Prevention and Handling of Children with *Pneumonia* at the Mojoroto Village Posyandu, Kediri City" is *Tik Tok* Video Media. The number of samples used was 99 respondents without a control group.

Kediri City

Table 4.1. Comparison of Knowledge of Prevention of Children with *Pneumonia* before and after Providing *Health Education* with *Tik Tok* Video Media at Posyandu Mojoroto Village, Kediri City on July 15, 2024

Preventive Knowledge	Pre	The post
Mean	10,63	15,43
Max	16,00	19,00
Min	5,00	9,00
Std. Dev	2,48	1,94

2. Comparison of Knowledge of Handling Children with *Pneumonia* before and after Providing *Health Education* with *Tik Tok Video* Media at Posyandu Mojoroto Village, Kediri City

Table 4.2. Comparison of Knowledge of Handling Children with *Pneumonia* before and after Providing *Health Education* with *Tik Tok* Video Media at Posyandu Mojoroto Village, Kediri City on July 15, 2024

Handling Knowledge	Pre	The post
Mean	5,13	6,94
Max	7,00	10,00
Min	1,00	5,00
Std. Dev	1,33	1,33

Cross Tabulation Results

Table 4.3. Cross-tabulation of Age, Education, and Occupation with Knowledge of Prevention of Childhood *Pneumonia* before and after *Health Education* with *Tik Tok Video* Media at Posyandu Mojoroto Village, Kediri City on July 15, 2024

No.	Age	Mean		Max		Min		Std. Dev	
		Pre	The post	Pre	The post	Pre	The post	Pre	The post
1	< 20 Years	10,0	11,0	10,0	11,0	10,0	11,0	0,0	0,0
2	21 - 30 Years	10,5	15,5	16,0	19,0	5,0	9,0	2,4	1,9
3	> 30 Years	10,8	15,1	15,0	18,0	7,0	10,0	2,7	1,7
No.	**Last Education**	**Mean**		**Max**		**Min**		**Std. Dev**	
		Pre	**The post**	**Pre**	**The post**	**Pre**	**The post**	**Pre**	**The post**
1	SD	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
2	SMP	10,6	15,5	15,0	18,0	5,0	10,0	2,8	1,8
3	HIGH SCHOOL	10,5	15,4	16,0	19,0	5,0	9,0	2,4	2,0
4	PTN	10,8	14,8	13,0	18,0	8,0	13,0	2,0	1,8
No.	**Jobs**	**Mean**		**Max**		**Min**		**Std. Dev**	
		Pre	**The post**	**Pre**	**The post**	**Pre**	**The post**	**Pre**	**The post**
1	Housewife	10,9	15,4	16,0	19,0	7,0	9,0	2,3	1,9
2	Self-employed	10,5	15,4	15,0	18,0	5,0	10,0	2,5	2,1
3	Private	7,8	14,8	12,0	16,0	5,0	13,0	2,5	1,3
4	PNS	10,0	15,7	13,0	17,0	7,0	14,0	2,9	1,2
5	Miscellaneous	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0

Table 4.4. Cross-tabulation of Last *Education*, Age, and Occupation with Knowledge of Handling Children with *Pneumonia* before and after *Health Education* with *Tik Tok Video* Media at Posyandu Mojoroto Village, Kediri City on July 15, 2024

No.	Last Education	Mean		Max		Min		Std. Dev	
		Pre	The post	Pre	The post	Pre	The post	Pre	The post
1	SD	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
2	SMP	5,1	7,4	7,0	9,0	3,0	5,0	1,1	1,2
3	HIGH SCHOOL	5,1	6,8	7,0	10,0	1,0	5,0	1,4	1,3
4	PTN	4,6	6,3	6,0	8,0	3,0	5,0	1,1	1,1

No.	**Age**	**Mean**		**Max**		**Min**		**Std. Dev**	
		Pre	**The post**	**Pre**	**The post**	**Pre**	**The post**	**Pre**	**The post**
1	< 20 Years	6,0	7,0	6,0	7,0	6,0	7,0	0,0	0,0
2	21 - 30 Years	5,1	7,0	7,0	10,0	1,0	5,0	1,3	1,3
3	> 30 Years	5,2	6,6	7,0	9,0	4,0	5,0	1,1	1,4

No.	**Jobs**	**Mean**		**Max**		**Min**		**Std. Dev**	
		Pre	**The post**	**Pre**	**The post**	**Pre**	**The post**	**Pre**	**The post**
1	Housewife	5,2	6,9	7,0	10,0	1,0	5,0	1,3	1,3
2	Self-employed	4,9	6,7	7,0	9,0	3,0	5,0	1,0	1,2
3	Private	4,8	7,2	7,0	9,0	1,0	5,0	2,3	1,6
4	PNS	4,5	7,0	6,0	8,0	3,0	6,0	1,2	0,8
5	Miscellaneous	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0

Analysis of Research Statistical Test Results

Table 4.5. The results of the statistical test analysis of the Effect of Providing *Health Education* with *Tiktok Video* Media on Knowledge of Prevention and Handling of Children with *Pneumonia* at the Mojoroto Village Posyandu, Kediri City.

	Variables	*Mean*		*Mean Difference*	tcount	ttable	Sig.
Knowledge	Prevention	*Pre*	10,63	-4,808	-16,007	1,660 (- 1,660)	0,000
		The post	15,43				
	Handling	*Pre*	5,13	-1808	-11,102	1,660 (- 1,660)	0,002
		The post	6,94				

Description:
Mean : Average value
Mean Difference : Average value difference

Results:

1. Preventive Knowledge

   Based on the table above, there is - t_{count} < - t_{table} (-16.007 < -1.660) at a significance level of 5% or α = 0.05 and obtained a difference in the average value between *pre* prevention knowledge of 10.63 and *post* of 15.43, namely - 4.808 with a significance of 0.000 (p = 0.000 < 0.05) meaning that H0 is rejected, H1 (Preventive Knowledge), so there is an effect of providing *health education* with *tiktok video* media on preventive knowledge of children with *pneumonia*.

2. Handling Knowledge

   Based on the table above, there is - t_{count} < - t_{table} (-11.102 < -1.660) at a significance level of 5% or α = 0.05 and obtained a difference in the average value between *pre-handling* knowledge of 5.13 and *post* of 6.94 which is -1.808 with a significance of 0.002 (p = 0.002 < 0.05) meaning that H0 is rejected, H1 (Handling Knowledge), so there is an effect of providing *health education* with *tiktok video* media on knowledge of handling children with *pneumonia*.

4. DISCUSSION

A. **Knowledge of Prevention and Handling of Children with *Pneumonia* before Providing *Health Education* with *Tiktok Video* Media at Posyandu Mojoroto Village, Kediri City**

The results obtained during the study showed that the total number of respondents who were used as research respondents was 99 people. Knowledge of prevention of *pneumonia* in children before being given *health education* with *tik tok video* media was found to have a *pre mean* value of **10.63** with a maximum value of 16.00 and a minimum of 5.00. Meanwhile, the knowledge of handling children with *pneumonia* before being given *health education* with *tik tok video* media was found to have a *pre mean* value of **5.13** with a maximum value of 7.00 and a minimum of 1.00.

B. **Knowledge of Prevention and Handling of Children with *Pneumonia* after Providing *Health Education* with *Tiktok Video* Media at Posyandu Mojoroto Village, Kediri City**

The results obtained during the study showed that the total number of respondents who were used as research respondents was 99 people. Knowledge of prevention of children with *pneumonia* after being given *health education* with *tik tok video* media was found to have a *mean post* value of **15.43** with a maximum value of 19.00 and a minimum of 9.00. Meanwhile, the knowledge of handling children with *pneumonia* after being given *health education* with *tik tok video* media was found to have a *mean post* value of **6.94** with a maximum value of 10.00 and a minimum of 5.00.

C. **he Effect of Providing *Health Education* with *Tiktok* Video Media on Knowledge of Prevention and Handling of Children with *Pneumonia* at Posyandu Mojoroto Village, Kediri City**

The results of the research conducted obtained data analysis using the *Paired Sample T-Test* test, namely the significance value or *p-value* on prevention knowledge of 0.000 and handling knowledge of 0.002 with α = 0.05, which if <0.05 then H0 is rejected, then H1 is accepted, which can be concluded that there is an effect of Providing *Health Education* with *Tik Tok* Video

Media on Knowledge of Prevention and Handling of Children with *Pneumonia* at the Mojoroto Village Posyandu, Kediri City.

In the research that has been conducted, *pre-test* data from 99 research respondents were obtained, which previously knew the maximum *pre* prevention knowledge value was 16.00 and the minimum was 5.00 to a maximum of 19.00 and a minimum of 9.00 in the *post test* so that the average difference in the *mean* value of *pre* prevention knowledge was 10.63 with *post* 15.43, namely 4.8. Whereas in handling knowledge, it is known that the maximum *pre* value is 7.00 and the minimum is 1.00 to the maximum is 10.00 and the minimum is 5.00 in the *post test* so that the average difference in the *mean* value of *pre* prevention knowledge is 5.13 with *post* 6.94, namely 1.8.

5. CONCLUSIONS

The study, which was conducted on July 15, 2024, found that there was an increase in the knowledge of prevention and handling in mother respondents with *pneumonia* children, as seen from the results of statistical test analysis using *Paired Sample T-Test*, namely the significance value or *p-value* on prevention knowledge of 0.000 and handling knowledge of 0.002 with α = 0.05, which if <0.05 then H0 is rejected, then H1 is accepted, which can be concluded that there is an effect of Providing *Health Education* with *Tik Tok* Video Media on Knowledge of Prevention and Handling of Children with *Pneumonia* at the Mojoroto Village Posyandu, Kediri City.

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