

## THE EFFECT OF COUNSELING ABOUT “ISI PIRINGKU” USING VIDEO BLOG (VLOG) MEDIA ON THE KNOWLEDGE AND ATTITUDE OF UNDER-FIVE CHILDREN MOTHERS REGARDING FEEDING AMONG CHILDREN AGED 6—59 MONTHS

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### ABSTRACT

*Data from The United Nation Children’s Fund (UNICEF), shows more than 50% of toddler's deaths are related to malnutrition, and two-third of those are related to inappropriate feeding practice for babies and toddlers, such as MP-ASI (complementary feeding) that is too early or too late being given. The variety of proportion of food consumption among children 6-23 months old in Indonesia is 46,6%. The prevalence of stunting in Indonesia in 2018 was 30,8%. “Isi Piringku (My Plate)” is one of the implementations of dietary arrangements in accordance with balanced nutrition which was pioneered by The Ministry of Health in 2017 as a substitute of “4 Sehat 5 Sempurna (Healthy Four Perfect Five)”. Video Blog is one of the medias that stimulates the senses of sight and hearing. The purpose of this research is to determine the differences in knowledge and attitude of mothers before and after being given counseling about “Isi Piringku (My Plate)” for young children (6-59 months) using-video blog media. This research uses the Quasi Experimental Two Group Pre and Post Test Design. The statistical tests used were the Wilcoxon Signed-Rank Test and Mann-Whitney. The intervention group was given counseling with vlog and the control group was not given any treatment (placebo) on the first day. The measurement of the final knowledge and attitude is done a week later. The results of this research shows that there were significant differences in knowledge and attitude before and after counseling with video blog in the intervention group with p knowledge  $p=0,000$  ( $p<0,05$ ) and p attitude  $p=0,000$  ( $p<0,05$ ). In addition, there were differences in knowledge and attitude of the intervention control groups after being treated with p knowledge  $p=0,000$  ( $p<0,05$ ) and p attitude  $p=0,000$  ( $p<0,05$ ). There is an effect of “Isi Piringku” counseling using video blog media on the knowledges and attitudes of mothers about feeding their children.*

**Keywords:** knowledge, attitude, my plate, children aged 6-59 months

## **INTRODUCTION**

According to data from the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF), more than 50% of under-five deaths are related to malnutrition, and two-thirds of these deaths are related to inappropriate feeding practices in infants and toddlers, such as giving MP-ASI that is given too soon or too late. Inaccurate timing of giving complementary feeding will lead to children with weak immune systems, often get sick, and fail to thrive (1). The proportion of consumption of various foods in children aged 6–23 months in Indonesia is 46.6%; this indicates that not more than half of all toddlers in Indonesia consume diverse foods (2). According to the World Health Organization (WHO), Indonesia is the third country with the highest prevalence of stunting in Southeast Asia, with an average prevalence of 36.4% from 2005–2017. The prevalence rate of stunting under five in Indonesia had decreased in 2018 to 30.8% (2). However, this does not yet meet the WHO standard, which stipulates that an area is said to be good if the prevalence of stunting under five is 20% (3).

"Isi Piringku" is one of the implementations of dietary arrangements in accordance with the principles of balanced nutrition initiated by the Ministry of Health in 2017 as a substitute for the slogan "4 Sehat, 5 Sempurna" because in this slogan it is not recommended to share portions of each food ingredient, only emphasizing the completeness of the food ingredients used (4).

The principle applied in "Isi Piringku" is that the food is varied in one meal consisting of 2/3 of the plate being staple foods and vegetables, the other 1/3 being side dishes and fruits, balanced by drinking eight glasses of water a day, recommendations for washing hands with soap, physical activity for at least 30 minutes every day, and monitoring body weight every month (5). The scope of "Isi Piringku" has been differentiated based on three categories: children 6–23 months, children 2–5 years, and adults (6). "Isi Piringku" socialization for children aged 6–23 months and children aged 2–5 years have not been received priority attention. Knowledge possessed by a person is received through the senses. According to Maulana, the most efficient channeling of knowledge into the brain is through the sense of sight. Approximately 75%–87% of human knowledge is obtained through the

senses of sight, while the other 13–25% is channeled through the other five senses (7). Attitude is a reaction or response of someone who is still closed to a stimulus or object. Readiness or willingness to act, and not an exercise of certain motives. (8). According to Sandi (2016), attitude is a readiness to react to objects in a certain environment as an expression of appreciation.

A video blog (vlog) is one of the audio-visual media presented by a vlogger. In his vlog, a vlogger can shape himself according to what he wants. This can be seen from the structure that builds, starting from the communicator (someone who performs self-representation), the message (constructed identity), and the communicant (audience) (9). Submission of vlogs is carried out by meaning that is produced and exchanged between communities, so that two-way communication occurs when counseling is carried out using video blog media. Video blogs can be accessed using YouTube.

This study aims to determine the effect of "Isi Piringku" counseling with video blog (vlog) media on the knowledge and attitudes of mothers of children under five years old (6–59 months) about feeding in Kemandoran VII RW 03, South Jakarta. Nutrition education about "Isi Piringku" for toddlers using video blog media to a group of mothers in the Kemandoran VII RW 03 housing complex, South Jakarta, as an effort to promote stunting prevention at a later age. This research is also as an education for giving food to toddlers according to the portion of "Isi Piringku," because the "Isi Piringku" model, which is widely known by the public, is the general portion distribution model for adults.

## **SUBJECTS AND METHODS**

This study used Quasi Experimental Two Group Pre and Post Test Design and t-test analysis was applied to prove the effect counseling about "Isi Piringku" for toddlers (6–59 months) using video blog media by increasing the knowledge and attitudes of groups of their mothers. The group of mothers who had children aged 0-59 months was obtained from Posyandu "Pisang Uli" data located in RW.03, Kemandoran VII Housing, South Jakarta, as the intervention group. On the other hand, Posyandu "Pisang Susu" in RW.11, Kemandoran VIII Housing, South Jakarta was chosen as a group control. This research was conducted

in April 2020; two meetings were held within one week, and the vlog "Isi Piringku" for childrens (6–59 months) was shown once with a video duration of 6 minutes. The first meeting was done to make an agreement between the researcher and the respondent, filling out the knowledge and attitude pre-test questionnaire, and then showing the vlog "Isi Piringku" for childrens (6–59 months) in the intervention group. At the second meeting, the post-test of knowledge and attitudes were carried out, as well as nutrition education about “Isi Piringku” for childrens (6-59 months). Selection of the sample using proportional stratified random sampling technique that met the inclusion criteria, namely groups of mothers who have children aged 6-59 months at the Posyandu, lived in the research area, had to have mobile phones and can access the internet and housewives who do not work. For the criteria exclusion, they were Mothers of toddlers have a visual impairment (blindness) or hearing impairment (deafness) and do not care child by her self. Sampling by proportional stratified random with total subjects of 30 subjects for the intervention group and 30 subjects for the control group.

**RESULTS**

The results of this research showed in Tables below. The characteristics of the subjects were presented in Table 1.

**Table 1 Characteristics of Mothers of children aged 6-59 months**

Characteristics	Intervention Group		Control Group	
	n	%	n	%
<b>Age</b>				
Late teens (17–25 years)	4	13.3	8	26.7
Early adulthood (26–35years)	16	53.4	20	66.7
Late adulthood (36–45 years)	9	30.0	2	6.6
Early elderly (46–55 years)	1	3.3	0	0.0
<b>Last Formal Education</b>				
Graduated from middle schools/MTs	3	10.0	0	0.0
Graduated from high schools/MA	15	50.0	14	46.7
Graduated from collage/Universities	12	40.0	16	53.3
<b>Work</b>				
No Occupation	30	100.0	30	100.0
<b>Ever received information “Isi Piringku”</b>				

Yes	15	50.0	20	66.7
No	15	50.0	10	33.3
<b>Source of ever having Information</b>				
<b>“Isi Piringku”</b>				
Print media	2	13.3	1	5.0
Electronic media	2	13.3	3	15.0
Social media	11	73.4	16	80.0

**Table 2 Average Value of Knowledge and Attitude of the Intervention and Control Groups**

<b>Aspek Penilaian</b>	<b>Mean</b>	<b>±SD</b>	<b>Median</b>	<b>Min</b>	<b>Max</b>
<b>Group Knowledge</b>					
<b>Intervention Group</b>					
Initial knowledge	64.33	19.945	60.00	30.00	100.00
Final knowledge	90.67	9.072	90.00	70.00	100.00
<b>Control Group</b>					
Initial knowledge	73.33	13.979	70.00	50.00	100.00
Final knowledge	74.33	13.309	70.00	60.00	100.00
<b>Group Attitude</b>					
<b>Intervention Group</b>					
Initial attitude	74.00	6.249	72.50	65.00	90.00
Final attitude	88.25	8.098	90.00	75.00	100.00
<b>Control Group</b>					
Initial attitude	71.88	5.859	70.00	65.00	90.00
Final attitude	72.64	4.840	72.50	65.00	82.50

Based on table 2, it was found that in the intervention group, there were increases in the mean, median, and minimum values of the respondents' knowledge between before and after treatment. The average knowledge of respondents before being given treatment was 64.33 with  $\pm$ SD 19.945 and after being given treatment, it became 90.67 with  $\pm$ SD 9.072 with an average difference of 26.34. The median value before being given treatment was 60.00 and after being given treatment, it increased by 30.00 points to 90.00. The lowest score in the intervention group also increased, from 30.00 to 70.00, a difference of 40.00 points. The control group was not given any treatment (placebo) but was given nutrition education after the post-test, so they were expected to have the same knowledge. In the control group, there was an increase in the average pre-test and post-test scores, from 73.33 with  $\pm$ SD 13.979 to 74.33 with  $\pm$ SD 13.309 there was an increase of 1.00 points, and the

lowest pre-test and post-test scores experienced an increase from 50.00 to 60.00 with an increase of 10.00 points compared to the difference in mean and the difference in the lowest value of initial and final knowledge in the intervention group. The knowledge variable was measured on the first day of the study, and after one week, the post-test knowledge was measured. The increase in average knowledge in the control group may occur due to exposure to information obtained by respondents one week before the post-test was carried out, which could not be controlled by the researchers. These results are also supported by the results of research by Rinik eko et al. (7), examining the effectiveness of audiovisual as a media for health education, which stated that there was an increase in the average value of knowledge by 19.46 in the group of mothers who were given audiovisual media compared to the group of mothers who were given leaflets (an increase of 12.94).

There was an increase in the mean, median, minimum, and maximum values in the intervention group. Before being given treatment, the average attitude of the respondents was 74.00 with  $\pm$ SD 6.249 and experienced an increase of 14.25 points to 88.25 with  $\pm$ SD 8.098, the median value was 72.50, an increase of 17.50 points to 90.00, and the lowest value of 65.00 increased by 10.00 points to 75.00, and the maximum value increased by 10.00 points to 100.00 after being given treatment. In the control group, also obtained an increase in the mean and median values. On the first day of the study, the average attitude value of the control group respondents was 71.88 with  $\pm$ SD 5.859 and increased by 0.76 points to 72.64 with  $\pm$ SD 4.840. Likewise for the median value, from 70.00 to 72.50 with a difference of 2.50 points. However, there was a decrease in the maximum attitude score obtained by the control group. At the pre-test, the maximum value was 90.00 and decreased to 82.50 the difference was 7.50 points at the post-test. The increase in the mean value of the control group was quite big from the increase in the treatment group. Increases and decreases in attitude scores in the control group can be influenced by various factors, one of which is exposure to information, which causes a change in the average attitude scores after one week. These results are also in line with research by Rinik Eko et al., which states that the average increase in attitude is higher in the intervention group due to the treatment given and is influenced by media selection. Audiovisual media is a media that is accepted

by respondents because the delivery is interesting and not monotonous (7). To determine the effect of intervention on knowledge and attitudes, Mann-Whitney test was carried out to determine differences in knowledge and attitudes before and after treatment in the two groups of subjects, as presented in table 3 below.

**Table 3 The Results of The Knowledge Rating Difference Test of The Intervention and Control Groups Before and After Being Given Counseling "Isi Piringku for Toddlers (6–59 Months)" with Video Blog**

Group	Pretest			Posttest		
	n	Average Rating	Number of Ratings	n	Average Rating	Number of Ratings
<b>Intervention group</b>	30	26.13	784.00	30	40.25	1207.50
<b>Control group</b>	30	34.87	1046.00	30	20.75	622.50
<b>Total</b>	60			60		
<b>Asymp. Sig (0.05)</b>		0.050			0.000	

Based on the Mann-Whitney test, it was found that the average pre-test rating in the control group was higher than that in the intervention group, this was allegedly related to previous exposure to information about "Isi Piringku". Based on the results of Mann-Whitney test, the p-value was 0.050 (=0.05), which meant that there was no difference between the intervention and control groups before being given treatment. After being given treatment, the post-test average rating of the intervention group was higher than that of the control group, which was 40.25. The result of the p-value in the post-test between the intervention and control groups was 0.000 (<0.05), which means that there was a significant difference between the scores or knowledge ratings of the intervention and control groups after being given treatment.

**Table 4 Test Results of Difference in Knowledge Rating in Intervention and Control Groups**

Rating	Intervention Group			Control Group		
	n	Average Rating	Number of Ratings	n	Average Rating	Number of Ratings
<b>Negative rating</b>	0	0.00	0.00	4	6.00	24.00
<b>Positive rating</b>	26	13.50	351.00	7	6.00	42.00
<b>Constant</b>	4			19		
<b>Total</b>	30			30		
<b>Asymp. Sig (0.05)</b>		0.000			0.366	

In order to prove the effect of "Isi Piringku" education using video blog (vlog) media on the knowledge and attitudes of toddler mothers (6–59 months) about feeding toddlers, a different test of knowledge and attitudes was carried out before and after treatment. The results of the different test analyses are presented in table 4 below.

Table 4 shows that in the intervention group, there were no respondents who experienced a decrease in rank or score from pre-test to post-test. In fact, 26 respondents experienced an increase in rank from pre-test to post-test with an average rating of 13.50. As many as four respondents have the same rank on the pre-test and post-test. From the results of the Wilcoxon rank test in the intervention group, a p-value = 0.000 (sig < 0.05) was obtained, which means that there was a difference in rank or score before and after being given treatment. In the control group, there were 4 respondents who experienced a decrease in rank or score from the pre-test to the post-test, with an average rating = 6.00. As many as 7 out of 30 respondents experienced an increase in rank with an average rating of 6.00, and as many as 19 respondents had the same rank between the pre-test and post-test. From the results of the Wilcoxon Signed-Rank Test in the control group, a p-value = 0.366 (sig>0.05) was obtained, which means there was no difference in rank or score before and after treatment. In this case, the control group was not given any treatment for one week of the study. After collecting the post-test data, they were also given the same counseling as the intervention group as a code of ethics in research, namely not leaving the control group respondents in a state of ignorance. From the results of the Wilcoxon Signed-Rank Test, it showed that there was a significant difference in knowledge between the intervention and control groups both before and after treatment.

The Mann-Whitney test in table 5 above explains that the average rating in the intervention group before being given counseling was 33.98 and the control group was 27.02. The results of Mann-Whitney test on attitudes before counseling or the pre-test between the intervention and control groups were 0.118 (sig>0.05), meaning that there was no difference in attitudes between the intervention and control groups before being given counseling. The average rating of the treatment group was higher than the control group after being given education, that is, 44.02 in the intervention group and 16.98 in the control



group, with p-value of 0.000 (sig<0.05). This means that there is a significant difference between the post-test results of the intervention and control groups.

**Table 5 The Results of The Attitude Rating Difference Test between The Intervention and Control Groups Before and After Being Given Counseling "Isi Piringku for Toddlers (6–59 Months)" with Media Video Blog**

Group	Pretest			Posttest		
	n	Average Rating	Number of Ratings	n	Average Rating	Number of Ratings
<b>Intervention group</b>	30	33.98	1019.50	30	44.02	1320.50
<b>Control group</b>	30	27.02	810.50	30	16.98	509.50
<b>Total</b>	60			60		
<b>Asymp. Sig (0.05)</b>		0.118			0.000	

This study also showed a change in attitude in the intervention and control groups both before and after being given treatment. Differences in attitudes between the intervention groups are presented in table 6 below.

**Table 6 Test Results for Differences in Attitude Ratings in The Treatment and Control Groups**

Rating	Intervention Group			Control Group		
	n	Average Rating	Number of Ratings	n	Average Rating	Number of Ratings
<b>Negative rating</b>	0	0.00	0.00	5	8.40	42.00
<b>Positive rating</b>	30	15.50	465.00	11	8.55	94.00
<b>Constant</b>	0			14		
<b>Total</b>	30			30		
<b>Asymp. Sig (0.05)</b>		0.000			0.169	

The Wilcoxon Signed-Rank Test showed that all respondents in the treatment group experienced an increase in attitude ratings after being given counseling using vlog media, with a p-value = 0.000 (sig <0.05). This means that there are significant differences in attitudes in the treatment group before and after being treated. While in the control group, there were 5 respondents who experienced a decrease in rank, 11 respondents experienced an increase in rank, and 14 respondents had the same rank between the pre-test and post-

test with p-value = 0.169 ( $> 0.05$ ), meaning that there was no difference in attitudes between pre-test and post-test measurements.

## **CONCLUSIONS**

There is a difference in the mean value of knowledge and attitudes between the intervention and control groups before and after being given counseling. The mean value of knowledge and attitude in the intervention group is higher than that of the control group. More than half (53.3%) of the respondents in the control group and 66.7% in the intervention group were aged 26–35 years. The last formal educational level of the respondents in the intervention and control groups was mostly high school/ MA graduates, 50% in the intervention group and 46.7% in the control group. All respondents in both the intervention and control groups were housewives who did not work. Most of the respondents had received information about "Isi Piringku", 50.0% of the intervention group respondents and 66.7% of the control group respondents. Sources of information were obtained mostly from social media, namely 36.7% in the intervention group and 53.3% in the control group. The homogeneity test results showed no differences in the characteristics of education, employment, information exposure, and information sources. Normality test results  $<0.05$ . There was an increase in the level of knowledge of the respondents in the intervention group after being given counseling compared to the control group. There were significant differences in knowledge and attitudes in the intervention group before and after being given counseling. There were significant differences in knowledge and attitudes between the intervention and control groups after being given education. Media video blog (vlog) is an effective medium to significantly increase knowledge and attitudes.

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