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Research Article

Comparison of the Effectiveness Between Kuresif Audiovisual Media with Flipchart Media on Increasing Knowledge and Attitudes of 0-24 Month Invant Underweight's Mother about Complementary Feeding

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Abstract

Aims: This research aims to compare the effectiveness between Kuresif audiovisual media and Flip Sheet Media in improving mothers' knowledge and attitudes.

Methods: This type of research is a quasi-experiment with a pretest posttest control group design based on the total sampling technique. The research was conducted during August-September 2021. The sample consisted of 102 control groups and 102 intervention groups. Statistical analysis using the Wilcoxon test with questionnaire. which aims to determine the effect of applying flip-sheet media and Kuresif audiovisual media on mothers' knowledge and attitudes in providing appropriate complementary feeding.

Results: The results showed that in the flipchart media group there was an average increase in knowledge of 4,3% from 11,8% to 16,1%. Mothers' attitudes experienced an average increase of 20,9% from 56,8% to 77,7%. Meanwhile, in the kuresif audiovisual media group the average increase in knowledge was 6,9% from 12,4% to 19,3% and attitudes experienced an average increase of 33,4% from 59,1% to 94,5% with $p=0,00$.

Conclusions: Kuresif audiovisual media is the most effective in increasing mothers' knowledge and attitudes compared with flipchart media. Indonesia is still facing nutritional problems that have a serious impact on the quality of human resources. Mother's lack of knowledge is one of the causes of improper nutritional intake. One way to accelerate efforts to break the cycle of nutritional problems is to increase mother's knowledge through counseling using flipchart media. Based on the evaluation carried out, the flipchart media has not shown an increase in the knowledge and attitudes of mothers regarding complementary feeding. Innovation is needed from counseling media in order to increase mother's knowledge and attitudes.

Keywords:

Attitude, complementary feeding, knowledge, kuresif audiovisual media

INTRODUCTION

Nutritional status is a condition caused by the balance of intake of nutrients with food and the need for nutrients by the body. The role of nutritional status assessment aims to determine whether there is an incorrect nutritional status (1)

The nutritional status of children under five is assessed according to 3 indices, namely weight for age (BB/A), height for age (TB/A), and weight for height (BB/TB) (2) Undernutrition and Malnutrition is a condition in which the body is in a very serious condition as a result of experiencing a lack of nutrients over a long or chronic period and is also caused by infection with certain diseases that interfere with the process of digesting food (3). Malnutrition at the time of the fetus and toddler age can affect brain growth because brain cells cannot develop. Children who suffer from malnutrition will have uneasy, whiny behavior, and at an advanced stage the child will be apathetic (4).

Malnutrition in children occurs because of the inappropriate habit of giving complementary feeding. (5,6) Complementary Feeding are other foods and liquids besides breast milk that are given to babies starting at 6 months of age when breast milk alone is no longer sufficient to meet their nutritional needs. As a guide for giving complementary feeding, the World Health Organization (WHO) requires the following four things, including timely, adequate, responsive, safe and hygienic (7).

Ignorance of how to feed children and harmful habits is the main cause of malnutrition in infants under 2 years of age (toddler) (8). Increasing knowledge about proper complementary feeding is carried out by counseling using flipchart media, showing no significant changes (9).

Health education is an educational activity carried out by spreading messages and instilling beliefs so that people are not only aware, know and understand, but are also willing and able to carry out

recommendations related to health (10). Flipcharts are health media in the form of double-sided sheets. It is usually shaped like a picture book where each sheet is filled with pictures and on the back contains a message or information related to the picture (11).

So it is necessary to innovate counseling media in the form of audiovisual (12). using kuresif audiovisual media to increase the knowledge and attitudes of mothers of babies 0-24 months. It is an audiovisual health education media in the form of motion audiovisual (video) in MP4 format that is inserted into a flash drive and an authentic cover named Kuresif Audiovisual Media containing health messages regarding baby nutrition 0-24 months during the breastfeeding phase. Complementary feeding starting from the basic rules for feeding children, the requirements for giving complementary feeding according to WHO, and modifying complementary feeding recipes for babies aged 6-24 months according to the child's age.

The advantages of counseling with audiovisual media include clarifying the presentation of health messages, being able to visualize a very broad concept in a video, providing a reality that may be difficult to re-record for the eyes and minds of the target; the information conveyed is in the form of sound and images that can be received by two senses at once with sight and hearing, attracts more participants' attention so as to arouse participant enthusiasm to get information and is also easier to accept, its use is not boring and the results are easier to understand, effectively reach many participants, can played or repeated, involving many senses that are used to receive something, the more and the clearer the knowledge obtained (13).

Which aims to determine the effect of the application of flipchart media and kuresif audiovisual media on the knowledge and attitudes of mothers in providing appropriate complementary breastfeeding. (14).

METHODS

The research used a quasi-experimental with a pretest posttest control group design in one of Public Health Centre of Ciamis Regency in July-August 2021 and get Ethical Clearance License. The control group received counseling treatment using flipchart media, while the intervention group was given audiovisual media. In this group, a pretest was carried out before counseling and a posttest with questionnaire after counseling was carried out to find out the knowledge and attitudes of under-aged mothers about proper complementary feeding (15). The data analyze using Wilcoxon, the results of data calculations obtained as many as 102 research subjects in the intervention group using cursive audiovisual media and 102 people in the control group using flipchart media. The results before and after giving the treatment will be compared for its effectiveness (16).

RESULTS

The research entitled Comparing the effectiveness of kuresif audiovisual media

with flipchart media on increasing the knowledge and attitudes of mothers of infants 0-24 months about complementary feeding in the working area of the Ciamis Health Center.

The subjects in this study were mothers with under-fives and undernourished, i.e. infants 0-24 months with nutritional status based on body weight for age (BB/U) at <-3,0-<-2,0 deviation standard (17) who were in the working area of the Ciamis Health Center, Ciamis Regency.

Respondents in this study totaled 204 women aged 20-45 years and were divided into 2 groups (18) namely the group that was given treatment using kuresif audiovisual media as many as 102 people and the group that was given treatment with flipchart media as many as 102 people. This treatment was carried out for 15- 60 minutes during the toddler mother class. Prior to being given treatment, the respondents measured their knowledge and attitudes first and repeated measurements of knowledge and attitudes after being given the treatment.

Table 1. Demographic Characteristics of Respondent

Variable	Control Group (Total 102)		Intervention Group (Total 102)	
	N	%	N	%
Mother's				
Age (Years)				
20-35	95	93,1	88	86,3
36-40	7	6,9	14	13,7
Education				
Elementary	8	7,8	5	4,9
High School	82	80,4	77	75,5
Tinggi	12	11,8	20	19,6
Parity				
Primipara	60	58,8	52	51,0
Multipara	42	41,2	50	49,0
Work				
House Wife	79	77,5	69	67,6
Enterpreneur	11	10,8	21	20,6
Laborer	12	11,8	12	11,8
Child's Age				

(Month)	26	25,5	35	34,3
6-8	25	24,5	19	18,6
9-11	51	50	48	47,1
<u>12-24</u>				

Characteristics of respondents in the control group and the intervention group, the majority of mothers aged 20–35 years old. Education of the respondents in the two groups, both the control and the intervention group, the majority had secondary education. The parity of respondents in the control group and the intervention group was mostly primiparas.

The occupation of the respondents in this study, both the control group and the intervention group, were mostly housewives. The majority of children in the control and intervention groups were 12–24 months.

Table 2. Increasing Knowledge and Attitudes Pretest and Posttest

Variable	Flipchart				Kuresif			
	Pretest		Posttest		Pretest		Posttest	
	n	%	N	%	n	%	N	%
Knowledge								
<i>Mean + SD</i>	11,8±1,2	0,0	16,1±1,4(4,5)		12,4±1,6	1,0	19,3±0,5	7
Good	0	34,3	62	60,8	1	64,7	102	100,0
Enough	67		40	39,2	66	34,3	0	0,0
Low	35		0	0,0	35		0	0,0
Attitude								
<i>Mean + SD</i>	56,8±5,5		77,7±3,7(21)		59,1±4,8		94,5±3,8(35)	
Positive	0		60		0		102	100,0
Negative	102	0,0	42	58,8	102	0,0	0	0,0
		100,0		41,2		100,0		
P Value			0,00					

Table 2 shows that there was a difference between before and after the treatment, there was an increase in knowledge and attitudes after being given cursive flipcharts and audiovisual media. Both groups experienced an increase in average knowledge and attitudes, but the intervention group experienced a more significant increase. The effectiveness of the treatment given by the researchers to the two groups can be determined by conducting a paired t-test. This test was carried out after fulfilling the requirements with differences between the control group and the intervention group. The following is the paired t-test in the control group and the intervention group:

Table 3. Paired T-Test Test of Turnsheet Media and Kuresif Audiovisual Media on Increasing Knowledge and Attitudes of Mothers of Infants 0–24 Months

Variable	Control Group		Intervention Group	
	N	%	N	%
Knowledge				
<i>Categoric Score</i>				
Positive	76	74,5	101	99,0
Negative	0	0,0	0	0,0
Similar	26	25,5	1	1,0
<i>Z-Score</i>	8,0		9,1	
<i>P Value</i>	0,000		0,000	
Attitude				
<i>Categoric Score</i>				
Positive	60	58,8	100	98,0
Negative	0	0,0	0	0,0
Similar	42	41,2	2	2,0
<i>Z-Score</i>	7,7		10,1	
<i>P Value</i>	0,000		0,000	

Table 3 shows that Flipchart media increase in knowledge of 74,5% and attitude of 58,8%. Meanwhile, Kuresif Audiovisual Media an increase in knowledge of 99,0% and attitude of 98,0% with a p value of 0,00. Kuresif Audiovisual media the most effective in increasing the knowledge and attitudes of mothers of babies 0–24 months.

DISCUSSION

The knowledge level of the control group increased by 74,5% and the mother's attitude increased by 58,8%. During the counseling process, the respondents paid little attention to the instructors even though the extension officers were already shouting, the respondents were more focused on their respective clowns. The blend for making the right complementary feeding on the flipchart used animated cartoon images, not in the form of real pictures so that respondents were still confused about the implementation of

making the right complementary feeding especially in terms of texture which of course is different at each child's age. The majority of respondents in this study were aged 20–35 years, primiparous, and worked as housewives which allowed respondents to have insufficient knowledge in terms of children's nutritional intake so that respondents were confused about the implementation of the cooking process and texture of complementary feeding for children's age stages. Mothers do not understand the proper process for making complementary feeding in terms of procedures that require standardized complementary feeding in a safe and hygienic manner, starting from the washing of ingredients, the cooking process, to how children should eat properly without distraction methods. When explaining one by one the pictures on the flipchart, the respondent paid little attention because the small size of the picture was faced by the

mother in a large place with many respondents so that it was not clear and the health message was not fully acceptable to the respondent. Increased knowledge and attitudes of mothers, there was an average increase in knowledge of 6.9 from 12.4 to 19.3 and attitudes experienced an average increase of 33.4 from 59.1 to 94.5. While the paired t-test in Table 3 shows that the knowledge level of the intervention group experienced an increase in knowledge of 99% and the attitude of the mother experienced a change of 98%.

During the counseling, the respondents looked enthusiastic about watching the counseling material from the beginning of the counseling. The material contains basic rules for feeding children which direct respondents to feed children in the right way. The second material contains the conditions for giving complementary feeding according to WHO, in general the mother already knows when to start complementary feeding. The majority of new mothers know that feeding their children has rules, especially regarding adequate complementary feeding composition, safe complementary feeding manufacturing processes, and responsive feeding processes.

The implementation of making homemade complementary feeding is shown with step-by-step tutorials using original non-vector materials, so mothers can capture the reality of the process of making proper complementary feeding. The majority of respondents are aged 20-35 years, primiparous, and work as housewives, so the respondents have less knowledge and are sometimes hesitant in giving complementary feeding to their children. Not only primiparous respondents, multiparous respondents were also interested in modifying the complementary feeding recipe that already meets children's calorie needs.

The results of the analysis show that there was an increase in the average knowledge in the control group by 4,3% from 11,8% to

16,1%. The mother's attitude experienced an average increase of 20,9% from 56,8% to 77,7%. In the intervention group there was an average increase in knowledge of 6,9% from 12,4% to 19,3% and attitudes experienced an average increase of 33,4% from 59,1 to 94,5.

Based on the average increase, it can be concluded that attitudes in the intervention group experienced a higher average increase than knowledge, this is because in this study the majority of respondents were aged 20–35 years, the majority were secondary education graduates, with parity the majority were primiparas, the majority took care of the household, and the age majority children 12–24 months. With conditions of age 20–35 years, secondary education graduates, primiparas, and working as housewives, usually in this condition the respondents have no experience in taking care of children, lack of knowledge makes respondents thirsty for information, open to technological advances so that when given counseling with kuresif audiovisual media can answer respondents' doubts in terms of providing nutrition to under-fives. Apart from this counseling, respondents often seek out information about the nutrition of toddler on social media which often results in respondents receiving incorrect information.

The material in the kuresif audiovisual media contains valid information regarding the rules for feeding children, the requirements for giving complementary feeding according to WHO, and various modifications to the complementary feeding recipe according to the age of the child based on library sources and is packaged in video form with light discussion so that it can be increasing respondents' knowledge, answering respondents' doubts, and improving mothers' attitudes in terms of proper complementary feeding for toddler.

The flipchart media has an increase in knowledge of 74,5% and an attitude of 58,8%, while the kuresif audiovisual media

has an increase in knowledge of 99% and an attitude of 98%. The intervention group experienced an increase in knowledge and attitudes more effectively than the control group, this could be supported by interesting content accompanied by sound that could attract the attention of not only mothers during counseling but also toddlers so that mothers and toddlers could watch the counseling material. Meanwhile in the control group, even though the instructor was screaming, the mother was busy with her clown and did not pay attention to the pictures contained in the flipchart media so that the health messages given could not be fully received.

CONCLUSION

There was an increase in mother's knowledge and attitudes about complementary feeding after treatment using flipchart media, there was an increase in mother's knowledge and attitudes about complementary feeding. Kuresif audiovisual media was more effective in increasing mother's knowledge and attitudes about complementary feeding.

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