

# The Influence of Health Counseling Using Video and Leaflet Media on Changes in Parents' Knowledge About Immunization Under Two Years (IBL) at Posyandu Mawar, Sumber Mulia Village, Lubai Ulu District, Muara Enim Regency in 2024

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**Abstract**— Complete immunization under two years (IBL) is an immunization program aimed at protecting babies and toddlers from diseases that can be prevented by VPD immunization. This program has a very important role in improving children's health and preventing the spread of infectious diseases in the community. Complete immunization under two years of age (IBL) is an integral part of public health efforts to protect infants and toddlers from preventable diseases. By administering vaccines on time according to schedule, IBL can help reduce morbidity and mortality due to infectious diseases. Despite challenges in implementation, continued efforts to improve access, awareness, and logistics systems can help increase the effectiveness and coverage of IBL programs. The research design used in this research uses a quantitative approach using the Quasi Experimental method with a one group pre-test and post-test design. The research sample was 40 parents of children under two years old, at Posyandu Mawar, Sumber Mulia Village, Lubai Ulu District, Muara Enim Regency, totaling 40 respondents. The data analysis used in the research is analysis Paired T-Test. Based on univariate analysis, the average value of respondents' knowledge before counseling was 50.75 out of 40 respondents, and the average value of respondents' knowledge after counseling was 73.25 out of 40 respondents. The results of bivariate analysis showed that there was a significant difference between knowledge about Complete immunization under two years of age (IBL) before and after counseling with video media health promotions and leaflets  $p$  value 0,000. The conclusion of this research is that there is a significant influence of video media and leaflets on changes in parents' knowledge about complete immunization under two years (IBL) at Posyandu Mawar, Sumber Mulia Village, Lubai Ulu District, Muara Enim Regency. value 0.000.

**Keywords**— Immunization, Knowledge, audio visual media, Leaflets.

## I. INTRODUCTION

Complete immunization under two years (IBL) is an immunization program aimed at protecting babies and toddlers from diseases that can be prevented by PD3I immunization. This program has a very important role in improving children's health and preventing the spread of infectious diseases in the community (World Health Organization, 2022).

Benefits of complete immunization under two years (IBL), preventing infectious diseases, IBL helps protect babies and toddlers from serious diseases such as measles, polio, diphtheria, pertussis, tetanus, hepatitis B, and Haemophilus influenzae type B (Hib). Reduces death rates by providing protection against disease a potentially fatal disease, IBL can reduce mortality in infants and toddlers. Reducing morbidity through timely vaccination can reduce morbidity due to preventable diseases. Helps create herd immunity (*Herd Immunity*) by reducing the spread of disease among populations, IBL can help protect individuals who cannot be vaccinated, such as babies who are too young or individuals with weakened immune systems (Nurvi Susanti, Efri Yuliana, Zulmeliza Rasyid, 2024).

The type of vaccine given in IBL is given according to the schedule set by the local health authority. Several vaccines

are generally included in IBL programs include: polio vaccine, measles, mumps, rubella (MMR) vaccine, diphtheria, tetanus, pertussis (DTP) vaccine, hepatitis B vaccine, haemophilus influenzae type B (Hib) vaccine (Sutinbuk & Asmaruddin, 2023).

The complete immunization schedule for a two-year-old baby may vary based on each country's national health guidelines. However, generally, IBL vaccination starts when the baby is a few months old and continues until the first few years of life. Challenges in implementing IBL, although IBL has very important benefits, its implementation is not always easy. Some of the challenges faced in implementing the IBL program include accessibility, namely, especially in rural or remote areas, access to health facilities and vaccinations can be difficult. Public awareness, namely the lack of public understanding and awareness regarding the importance of vaccination, can be an obstacle in achieving optimal vaccination coverage. Logistics by providing adequate vaccines, proper storage and efficient distribution are logistical challenges in implementing the IBL program (Kuswaningsih, Binti Yunariyah, 2024).

In 2021, the number of targets for complete immunization under two years (IBL) at the Sumber Mulia Public Health Center is 651 people, consisting of 332 men and 319 women, while the coverage for DPT-HB Hib immunization for men is

248 people (74.7 %) and 223 women (69.9%) with cumulative coverage of 471 people (72.4%). Meanwhile, for Measles Rubella Coverage in the same year, there were 283 men (85.2%) and 308 women (96.6%) with a cumulative total of 591 people (90.8%). In 2022, the number of targets for complete immunization under two years (IBL) will be 1458 people, consisting of 744 men and 714 women, in addition to the number of targets increasing quite significantly, DPT-HB-Hib immunization coverage will decrease very sharply, namely 220 people. (29.6%) men and 208 people (29.1%). Meanwhile, complete immunization coverage under two years (IBL) for measles and rubella is 281 people (37.8%) for men and 270 women (37.8%), with a cumulative total coverage of 551 people (37.8%). The total number of complete immunization coverage under two years (IBL) will increase again in 2023. In 2023, the target number for immunization under two years is 487 people, consisting of 254 men and 233 women. The complete immunization coverage under two years (IBL) DPT-HB-Hib in 2023 is 167 males. People (65.7%) and women were 134 people (57.5%) with total coverage reaching 301 people (61.8%), and complete immunization coverage under two years (IBL) Measles Rubella in the same year was recorded as Men 160 men (63.0%) and 142 women (60.90%) with a cumulative total coverage of 302 people (62.0%) (Profile imunisasi Puskesmas Sumber Mulia, 2023).

Knowledge is a result that occurs after someone senses a particular object, and can also be from the experience gained. A person's behavior that is based on knowledge will be of higher quality than behavior that is not based on knowledge. Knowledge is the result of knowing, and this happens when someone has done something (Andraini et al., 2019).

Of course, this is very worrying and vulnerable to extraordinary events (KLB). Due to low immunization coverage in children and babies result in not forming *Herd Immunity*, Of course there will be potential later the occurrence of an outbreak or KLB. A total of 21 provinces and 296 districts/cities are areas with a high risk of polio transmission. In fact, in 2022 to 2023 there will be an outbreak of type 2 polio in Indonesia. In 2022 in Aceh Province in Pidie, North Aceh and Bireuen Regencies, and in 2023 polio immunization coverage in Purwakarta, West Java is very low (Syafarudin et al., 2022).

Parental knowledge about complete immunization under two years (IBL) is very important in ensuring optimal protection of their children against diseases that can be prevented through immunization. Knowledge is an understanding or awareness of facts, information, concepts, principles, or skills acquired through study, experience, or observation. The understanding that a person has about the world around him, both concrete and abstract. Knowledge covers various fields, including natural sciences, social sciences, arts, culture, and many more (Firdaus et al., 2023).

Extension using video media is a communication method used to convey information, knowledge or messages to the audience through the visual medium of video. This method involves the use of video technology to convey message important to the target audience effectively. Some of the

characteristics and advantages of extension using video media are that video media allows the delivery of messages visually and audio simultaneously. This allows the audience to see and hear information in an interesting and engaging way. Videos have the ability to quickly capture the audience's attention and maintain their engagement throughout the duration of the video. Flexibility, namely that it can be accessed at any time, can be updated and developed, makes it easier to convey complex information, and has long-term effects (Qurrotul et al., 2023).

Extension using leaflet media is a communication method used to convey information, messages or knowledge to the audience through printed forms in the form of brochures or pamphlets. This method involves the creation and distribution of leaflets containing relevant and important information to be conveyed to the target audience. Some of the characteristics and advantages of extension using leaflet media are that they are portable and easy to store, easy to produce, suitable for short information, can be re-read, have targeting capabilities, can be used as supporting material (I. T. Faradilla, N. Nina, 2023).

Knowledge about complete immunization under two years (IBL) is important to assess the extent to which parents understand the concept and benefits of immunization. This includes knowledge of the types of vaccines included in the Complete Immunization under two years (IBL), recommended immunization schedules, as well as vaccine effectiveness and safety.

Based on the description of the data above, the researcher interested in researching about "The influence of health education using video and leaflet media on changes in parents' knowledge about complete immunization under two years (IBL) at Posyandu Mawar, Sumber Mulia Village, Lubai Ulu District, Muara Enim Regency".

## II. RESEARCH METHODS

The research design used in this research is a quantitative approach using the Quasi Experimental method. With a one group pre design test and post-test, namely experiments carried out on one group only without another group as a comparison. A quasi-experimental design without a control group is a quasi-experiment that produces clear causal or causal conclusions by reducing the inclusion of alternative explanations to see the influence of the treatment that has been given (Darussalam et al., 2019). Sample In this study, using total population techniques, namely all parents of children under two years as many as 40 people, at Posyandu Mawar, Sumber Mulia Village, Lubai Ulu District, Muara Enim Regency. The data analysis used in the research was analysis. *Paired T-Test*.

## III. RESEARCH RESULT

### 1. Age

Table 1. Age Frequency Distribution

No	Category Age	Frequency	Percentage (%)
1	Teenagers 12-25 Year	15	37.5
2	Adults >25 Year	25	62.5
<b>TOTAL</b>		<b>40</b>	<b>100</b>

From Table 1. Age Frequency in the adult category was 25 (62.5%) respondents and in the elderly category was 15 (37.5%) respondents.

2. Gender

Table 2. Gender Frequency Distribution

No	Category Gender	Frequency	Percentage (%)
1	Male	0	0
2	Female	40	100
<b>TOTAL</b>		<b>40</b>	<b>100</b>

From Table 2. Gender Frequency in the female category is 40 (100%) while there are no male respondents.

3. Education

Table 3. Education Frequency Distribution

No	Category Education	Frequency	Percentage (%)
1	SD	2	5.0
2	SMP	8	20.0
3	SMA	16	40.0
4	University	14	35.0
<b>TOTAL</b>		<b>40</b>	<b>100</b>

From table 3, the highest frequency of education is in the high school category, 16 (40.0%) respondents and the least in the elementary school category, 2 (5.0%) respondents.

4. Frequency of Parental Knowledge about Immunization under two years old (IBL) Before Counseling

Table 4. Frequency of Parental Knowledge Before Counseling

Value	Frequency	Percentage (%)
10	1	2.5
30	5	12.5
40	9	22.5
50	9	22.5
60	8	20.5
70	6	15.0
80	2	5.0
<b>Total</b>	<b>40</b>	<b>100</b>

Statistics		
		Pre Test
N	Valid	40
	Missing	0
Mean		50.75
Median		50.0
Std Error		2.465
Std. Deviation		15.589
Minimum		80
Maximum		10
Range		70

From Table 4 it is found that the lowest knowledge with a value of 10 was one respondent, the highest value was 80 for two respondents. The mean value in this study was 50.75 and the median was 50, standard deviation 15.589. The conclusion is that before the counseling was carried out, the average value of respondents was still low.

5. Frequency Distribution of Knowledge about Immunization under two years (IBL) After Counseling

Table 5. Frequency of Parental Knowledge After Counseling

Value	Frequency	Percentage (%)
40	3	7.5
50	2	5.0
60	4	10.0
70	10	25.0
80	14	35.0
90	6	12.5
100	2	5.0
<b>Total</b>	<b>40</b>	<b>100</b>

Statistics		
		Post Test
N	Valid	40
	Missing	0
Mean		73.25
Median		80.0
Std Error		2.358
Std. Deviation		14.916
Minimum		100
Maximum		40
Range		60

From table 5 It was found that the lowest knowledge score was 40, there was one respondent, the highest score was 100, there were two respondents. The mean value in this study was 73.25 and the median was 80, standard deviation 14.916. The conclusion is that the mean after counseling is 73.25, which means there has been an increase in knowledge after the counseling was carried out.

6. Average Knowledge about Immunization under two years (IBL) at Posyandu Mawar, Sumber Mulia Village, Lubai Ulu District

Table 6. Average Knowledge about Immunization under two years (IBL)

	Mean	Std Deviation	P. Value
Pre Test	50.73	15.589	0,000
Post Test	73.25	14.916	

From table 6 it is found that the average value before counseling is 50.73 with *standard deviation* 15,589. while after counseling the average score was 73.25 with *standard deviation* 14,916. Analysis Test *Pired Test* mark *P. Value* 0,000. Which means there is an increase in knowledge after counseling 22.52. From the results of statistical tests, it was concluded that there was an influence of video media and leaflets on changes in parents' knowledge about complete immunization under two years (IBL) at Posyandu Mawar, Sumber Mulia Village, Lubai Ulu District, Muara Enim Regency.

IV. DISCUSSION

1. The Influence of Video and Leaflet Media Counseling on Changes in Parents' Knowledge About Complete Immunization for Under Two Years (IBL) at Posyandu Mawar, Sumber Mulia Village, Lubai Ulu District, Muara Enim Regency

The average value after counseling using video media and leaflets at Posyandu Mawar, Sumber Mulia Village, Lubai Ulu District is 73.25 greater than the average value of knowledge before counseling using video and leaflet media at Posyandu

Mawar, Sumber Mulia Village, Lubai Ulu District namely 50.75. From the results of bivariate analysis were obtained *p* value 0,000. This means that there is an influence of health education using video media and leaflets on changes in parents' knowledge about complete immunization under two years (IBL) at Posyandu Mawar, Sumber Mulia Village, Lubai Ulu District, Muara Enim Regency.

The results of this research are in line with research conducted by Ikrimah Pohan et al., (2023) entitled Factors Associated with Complete Basic Immunization for Babies in the Working Area of the Padangmatinggi Health Center, Padang Sidempuan City, showing that the results Knowledge has a significant influence on providing basic immunizations to babies at the Padangmatinggi Community Health Center, Padang Sidempuan City with a sig-*p* value of  $0.007 < 0.05$ . The level of knowledge of parents, especially mothers, about the importance of complete basic immunization for babies plays an important role. The results of this research are also in line with research conducted by Masyudi et al., (2023), entitled "The Influence of Counseling and Sweeping Door to Door on Parents' Interest in Providing Basic Immunizations to Babies". This research data analysis uses test results *Chi-Square* then it is known *P* value = 0.016, then there is an influence between counseling on parents' interest in providing basic immunizations to babies. This research was also strengthened by Izhar Athala Sigit et al., (2023), who stated the research results *p*-value of 0.008, which means there is a significant relationship between parental knowledge and completeness of immunization. So that health education can influence the respondent's knowledge before counseling is carried out using Promkes Video Media and the knowledge of respondents after counseling is carried out using Promkes Video Media.

Most human knowledge is acquired through the eyes and ears. One factor that can increase knowledge is counseling. Extension is an activity related to increasing knowledge, skills, attitudes and behavior. As is the case with workers accepted through selection programs, in general they are not ready to use and old workers require new knowledge, skills and abilities in accordance with job demands and demands for developments in science and technology (Yue Du et al., 2024). Education using health promotion videos is an addition to a person's knowledge and abilities through practical learning techniques or instructions with the aim of changing or influencing human behavior individually, in groups or in society to be more independent in achieving life goals. Education using health promotion videos can be delivered directly, namely verbally, so that you get 90% results from saying to practicing what has been given by the instructor (Anita Elaine Weidmann et al., 2023).

#### V. CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the research that has been carried out, the following conclusions can be drawn:

1. The mean value of parental knowledge regarding immunizations under two years complete (IBL) before counseling was 50.75.
2. The mean value of parental knowledge about

immunizations under two years complete (IBL) after counseling was 75.25.

3. There was a significant influence after health education was carried out using video media and leaflets on changes in parents' knowledge about complete immunization under two years (IBL) at Posyandu Mawar, Sumber Mulia Village, Lubai Ulu District, Muara Enim Regency value 0.000.

Based on the results of the research that has been carried out, the suggestions are as follows: Building communication and internal coordination of the program with stickholders, to maintain the availability of vaccine stock and logistics.

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