



Effectiveness of Lecture with Demonstration Method on Maternal Knowledge about Growth and Development of Toddlers

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ABSTRACT

Growth and development are indicators of life achieved by humans from conception to adulthood (Faizah, 2020). An important period in a child's growth and development is the toddler stage, as this phase forms the foundation that will influence and determine the child's future development (Ayunita, 2017). At the Kairatu Barat Community Health Center, there is a Posyandu (Integrated Service Post) called Diaspora. A survey revealed that health promotion staff there always use the lecture method, which makes mothers of toddlers feel bored and inattentive to the counseling. This study aims to determine the effect of counseling using lecture and demonstration methods on mothers' knowledge about the growth and development of toddlers aged 3-5 years. This quasi-experimental study used a "two group pretest-posttest" research design. The population comprised 26 mothers with toddlers aged 3-5 years, all of whom were used as the research sample. Data was collected using a questionnaire to measure knowledge levels. Analysis using the Wilcoxon test showed that counseling using lecture ($p=0.010$) and demonstration ($p=0.001$) methods influenced the increase in mothers' knowledge. Meanwhile, the Mann-Whitney test showed that the demonstration method was more effective in increasing mothers' knowledge about the growth and development of toddlers aged 3-5 years ($p=0.000$).

Keywords: *Toddler Growth and Development, Lecture Method, Demonstration Method, Knowledge*

1. PENDAHULUAN

Growth and development are a continuous process from conception to maturity. In the developmental process of toddlers, there are critical periods where stimulation is needed for their potential to develop (Ramadhanti et al., 2019). The toddler stage is an important period for growth and development, as it influences future growth and development. Growth and development stages are divided based on the child's age, with the preschool stage being when the child is 3-5 years old (Septiani et al., 2019). Preschool children are in the pre-operational stage where, in this golden period, they

experience rapid progress in development (Oktaviani et al., 2021). Developmental aspects in preschool children include motor, personal-social, and language development.

World Health Organization (WHO) data from 2018 shows that 28.7% of toddlers worldwide experience growth and development problems, with Indonesia being the third country in Southeast Asia contributing to child growth and development issues (Beal et al., 2018). According to the 2018 Indonesian Health Profile, 27% of toddlers experienced growth and development problems, with 5-10% being children under 5 years old (Health

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Research and Development Agency, Indonesian Ministry of Health, 2018).

Child growth and development is not only related to the family's economic condition but also to parental mindset and parenting (Rumahorbo, 2020). Lack of maternal knowledge in early stimulation of child growth and development is an important factor causing problems in toddler growth and development (D. Yunita et al., 2020). Education about toddler growth and development is a primary issue that must be considered by all parties. Education can be done using various tools, media, and methods, with one form being counseling (Panghiyangani et al., 2018). The goals of health education relate to three aspects: increased knowledge, changed attitudes, and skills or practices related to health problems in the community (Ministry of Health RI, 1997). Methods that can be applied in health education include lectures, panel discussions, group discussions, brainstorming, role play, demonstrations, symposia, seminars, and others (Masturo et al., 2020).

Research by L. Yunita (2016) found that the lecture method was effective in increasing mothers' knowledge about handling diarrhea in toddlers. This is consistent with Susanti's (2020) research, which showed that lectures were more effective than leaflets in increasing mothers' knowledge about infant massage. Based on this background, the researchers were interested in analyzing the effectiveness of lecture and demonstration methods on mothers' knowledge level about the growth and development of toddlers aged 3-5 years.

2. RESEARCH METHODOLOGY

2.1. Research Type

This quasi-experimental study used a two-group pretest-posttest research design, where each group was given different treatments, allowing researchers to observe changes that occurred after the treatments.

2.2. Research Location and Time

The study was conducted at the Diaspora Posyandu in the working area of the Kairatu Barat Community Health Center, Kairatu District, West Seram Regency, Maluku Province, from August 25 to September 25, 2021.

2.3. Population and Sample

The population was all 26 mothers with toddlers aged 3-5 years at the Diaspora Posyandu in the Kairatu Barat Community Health Center's working area. The entire population was used as the sample and divided into two groups: the lecture method group and the demonstration method group.

2.4. Data Collection

2.4.1. Tahap Persiapan

Preparing research support facilities and infrastructure, such as research permits, collaboration with various parties involved (health centers and cadres), as well as materials, questionnaires, leaflets, child educational posters, and toys for child stimulation. This study has obtained a research ethics permit with the number 467/STIK-MH/KE/VIII/2021.

2.4.2. Implementation Stage

Mothers with toddlers were briefed on the purpose and objectives of the activity, followed by a 20-minute pretest. In the lecture method counseling, a leaflet on the growth and development of toddlers aged 3-5 years was used during the approximately 25-minute session, which covered the definition of growth and development and aspects of growth and development in children aged 3-5 years, including language and social behavior, gross motor skills, and fine motor skills. On the other hand, in the demonstration method counseling, mothers with toddlers were given a Kartu Menuju Sehat (KMS, a growth monitoring card) and an educational poster on the growth and development of toddlers aged 3-5 years, with cadres serving as demonstration guides during the 30-minute activity. After the counseling sessions, a 20-minute posttest was conducted to assess the impact of the interventions on the mothers' knowledge.

2.5. Data Processing and Analysis

2.5.1. Analysis Univariate

Univariate analysis aims to see the percentage of each variable, also known as a frequency distribution table. It describes respondents' characteristics, including mother's age, occupation, education, and knowledge about the growth and development of toddlers aged 3-5 years.

2.5.1. Bivariate Analysis

Bivariate analysis aims to analyze changes in knowledge level after the treatments using the Wilcoxon test and to analyze the difference in effectiveness between lecture and demonstration methods in increasing mothers' knowledge level about the growth and development of toddlers aged 3-5 years using the Mann-Whitney test

3. RESULTS

Table 1. Frequency distribution of respondents' characteristics

No	Characteristics	Category	f	%
1	Age	< 30 years	15	57.6
		>30 years	11	42.4
		Total	26	100
2	Education Level	No schooling	0	0
		Elementary School	6	23.1
		Secondary School	19	73.1
		Higher Education	1	3.8
		Total	26	100
3	Occupation	Housewife	24	92.3
		Employee	2	7.7
		Entrepreneur	0	0
		Total	26	100

Based on Table 1, most respondents (57.6%) were aged < 30 years, had secondary education (73.1%), and were housewives (92.3%).

Table 2. Effect of Lecture Method on Respondents' Knowledge Level about Growth and Development of Toddlers Aged 3-5 Years

Knowledge Level	Lecturing Method				p-value
	Before		After		
	f	%	f	%	
Good	1	7.6	2	15.4	0.01
Sufficient	6	46.2	9	69.2	
Insufficient	6	46.2	2	15.4	
Total	13	100	13	100	

Table 2 shows that before the lecture method, most respondents had sufficient (46.2%) and insufficient (46.2%) knowledge about the growth and development of toddlers aged 3-5 years. After the lecture, most

respondents (69.2%) had sufficient knowledge, and the percentage with insufficient knowledge decreased to 15.4%. The Wilcoxon test yielded $p=0.01 < 0.005$, indicating that the lecture method influenced mothers' knowledge level about the growth and development of toddlers aged 3-5 years.

Table 3. Effect of Demonstration Method on Respondents' Knowledge Level about Growth and Development of Toddlers Aged 3-5 Years

Knowledge Level	Demonstration Method				p Value
	Before		After		
	f	%	f	%	
Good	3	23.1	12	92.3	0.001
Sufficient	6	46.2	1	7.7	
Insufficient	4	30.7	0	0	
Total	13	100	13	100	

Table 3 shows that before the demonstration method, most respondents (46.2%) had sufficient knowledge. After the demonstration, most (92.3%) had good knowledge about the growth and development of toddlers aged 3-5 years. The Wilcoxon test yielded $p=0.001 < 0.005$, indicating that the demonstration method influenced mothers' knowledge level.

Table 4. Comparison of the Effectiveness of Lecture and Demonstration Methods on Mothers' Knowledge Level about Growth and Development of Toddlers Aged 3-5 Years

Method	Mean Rank	p-value
Lecture	69.38	0.000
Demonstration	92.54	

Table 4 shows that the Mann-Whitney test yielded $p=0.000 < 0.005$, indicating a difference in effectiveness between lecture and demonstration methods on mothers' knowledge level about the growth and development of toddlers aged 3-5 years. Based on the mean rank, the demonstration group had a higher value (92.54), suggesting that the demonstration method was more effective in increasing mothers' knowledge.

4. DISCUSSION

Analysis of knowledge level before the lecture method showed that 6 people (46.2%) had insufficient knowledge. After the lecture, there was an increase, with 9 people (69.2%) having sufficient knowledge. The Wilcoxon test yielded $p=0.010<0.05$, indicating that the lecture method influenced the increase in mothers' knowledge. This result is consistent with Achjar's (2013) study on 40 respondents at SMPN 1 Blahbatu, which showed that the average knowledge score before the lecture was 58 and increased to 81.23 after the lecture, suggesting an increase in knowledge after the intervention.

Health education is an effort to educate individuals or communities to be able to solve health problems (Sarwono, 2017). One health education method is the lecture method, which is a learning activity to increase understanding or correct definitions and positive attitudes towards health. In this study, respondents showed a good response by asking questions about the growth and development of toddlers aged 3-5 years when given the opportunity. The lecture method provides explanations to mothers with toddlers, who generally listen passively. The purpose of the lecture method is to provide information that can be manifested into cognitive, affective, and practical stages.

Before the demonstration method, 1 respondent (7.7%) had sufficient knowledge. After the demonstration, 12 respondents (92.3%) had good knowledge. The Wilcoxon test yielded $p=0.001<0.05$, indicating that the demonstration method influenced the increase in mothers' knowledge about the growth and development of toddlers aged 3-5 years. This is consistent with Avissa's (2012) study, which explained that health education using the demonstration method was more effective in increasing knowledge compared to the lecture method because respondents could practice or perform directly by modifying events, rules, and sequences as they are in reality or relevant to the actual conditions.

The demonstration method used in this study involved researchers using KMS to assess toddlers' growth and development. To determine the developmental aspects of toddlers aged 3-5 years, researchers used child education posters. The demonstration method is

considered more effective in increasing children's knowledge and skills. This is in line with Padila et al.'s (2020) research, which found a significant increase in handwashing ability in children who directly practiced handwashing.

The Mann-Whitney test comparing lecture and demonstration methods showed a difference in effectiveness between the two methods on mothers' knowledge level about the growth and development of toddlers aged 3-5 years, with $p=0.000$. The demonstration group experienced a greater increase in knowledge, suggesting that the demonstration method was more effective in increasing mothers' knowledge about the growth and development of toddlers aged 3-5 years.

5. CONCLUSION

Both lecture and demonstration methods effectively increased mothers' knowledge, but the demonstration method was more effective in increasing mothers' knowledge about the growth and development of toddlers aged 3-5 years.

6. RECOMMENDATION

Future studies should be conducted on a larger sample and consider confounding variables such as education level, age, and number of children.

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