
Child Growth and Development Education in Sei Tuan Village

Dior Manta Tambunan^{1,*}, Mhd. Taufik Daniel Hasibuan²), Jenita T. L. Halawa³), Anisa T. A. Simamora⁴), Dewi V. Lumbanraja⁵), Dina Silaban⁶), Elsa R. Silalahi⁷), Gabriel K. Rumaepa⁸), Hasnida Situmeang⁹), Karin Aulia¹⁰), Karolus K. Agustus¹¹), Marsinta Ambarita¹²), Qory A. Rahayu¹³), Revah S. Parhusip¹⁴), Robintang Hutasoit¹⁵), Rosen O. Siburian¹⁶), Siti Zahraini¹⁷), Swan S. A. P. Duha¹⁸), Yunike Agne Marbun¹⁹)

^{1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19}Study Program/Bachelor of Nursing Science, Murni Teguh University, Deli Serdang

*Corresponding Author

Email: dior.endlessbay@gmail.com

Abstract

Growth and developmental issues in toddlers are often not detected early because some parents perceive developmental delays as a normal process that will improve with age. Delayed detection leads to delayed intervention, which can decrease the chances of successful treatment. Therefore, parent's education is crucial and urgent. This activity was carried out by lecturer with students from the Bachelor in Nursing Science Study Program, Murni Teguh University at the Integrated Health Post in Sei Tuan Village and attended by 42 mothers who have toddlers. The enthusiasm of mothers for the program was evident in the lively Question & Answer session. The majority of mother's ages are 26-30 years old were 24 respondents (57.2%). The majority of mother's education levels are elementary school are 14 respondents (33.3%) and junior high school are 13 respondents (30.9%). The majority of mother's occupations are laborers and farmers, with 13 of each occupation representing 30.9%. The majority of mother's knowledge on pretest was poor with 19 respondents (45.2%), followed by sufficient with 18 respondents (42.9%). The majority of mothers experienced a significant improvement on posttest, with 26 respondents (61.9%) having good knowledge. It is recommended that comprehensive and consistent early detection of child growth and development be carried out.

Keywords: Children, Education, Growth and Development, Toddlers

INTRODUCTION

Child growth and development is a continuous process from conception to adolescence, encompassing physical growth and the development of motor, language, cognitive, social, emotional, and behavioral skills. The toddler period (0–59 months) is known as the golden period, as approximately 80% of brain development occurs in the first five years of life. Disruptions during this period can have long-term impacts on health, learning ability, productivity, and even the quality of human resources in the future. The WHO emphasizes that early childhood development is an important foundation for lifelong health and well-being (Kementerian Kesehatan Republik Indonesia (Kemenkes RI), 2025a).

In Indonesia, children under five still constitute a large population group, requiring serious attention in terms of health and development. Based on population projections and the latest national health data, toddlers are a priority group in health development programs because they are vulnerable to growth and developmental problems. Common growth and developmental problems include: delays in gross and fine motor development, language delays, cognitive development disorders, behavioral and social disorders, malnutrition, overnutrition and stunting, Stunting is a condition of growth failure due to chronic malnutrition, which causes a child's height to be lower than the WHO standard for their age (Kementerian Kesehatan Republik Indonesia (Kemenkes RI), 2022; Kumalasari et al., 2023).

The impact of stunting is not only impaired physical growth but can also impair cognitive development, reduce learning ability, increase the risk of metabolic diseases in adulthood, and reduce economic productivity. The latest data from the 2024, Indonesian Nutritional Status Survey (SSGI), published in 2025, shows that the national stunting prevalence in Indonesia reached 19.8%, a decrease from 21.5% in 2023. However, this figure remains a public health problem that requires ongoing intervention. The government targets a reduction in stunting prevalence to 14.2% by 2029 (Kementerian Kesehatan Republik Indonesia (Kemenkes RI), 2025b).

At the provincial level, North Sumatra still faces similar problems. According to the 2023 Indonesian Health Survey (SKI), which remains the regional benchmark until 2025, the prevalence of stunting in North Sumatra is 18.9%, although this shows a decrease compared to 21.1% in 2022. This figure indicates that nearly two in ten children still experience chronic growth disorders. At the district level, Deli Serdang is a priority area for the North Sumatra stunting reduction acceleration program. Various programs are being implemented, including: strengthening Integrated Health Posts (Posyandu), 1000 Days of Life interventions, supplementary feeding, growth monitoring, and family education (Pemerintah Provinsi Sumatera Utara (Pemprov Sumut), 2024).

This program is still ongoing due to the continued presence of stunting cases and child developmental issues within the community health center (Puskesmas) coverage area. Publicly published data on stunting prevalence for 2025 for Sei Tuan Village is limited and have 2 stunting children. Sei Tuan Village, located in the Percut Sei Tuan District, is still among the areas implementing intensive stunting prevention and toddler growth and development monitoring programs. Growth and developmental issues in toddlers are often not detected early because some parents perceive developmental delays as a normal process that will improve with age. Delayed detection leads to delayed intervention, which can decrease the chances of successful treatment. Therefore, growth and development assessments and parent education are crucial and urgent (Kementerian Kesehatan Republik Indonesia (Kemenkes RI), 2022).

RESEARCH METHODS

This community service was carried out by educational staff together with students from the Bachelor in Nursing Science Study Program, Murni Teguh University. This Community Service activity was carried out at the Integrated Health Post in Sei Tuan Village, Percut Sei Tuan District, Deli Serdang Regency, North Sumatra Province on December 20, 2025. This Community Service activity was attended by 42 mothers who have toddlers. Before providing education about growth and development, it first began with registration. Next, the Community Service event was opened by the Event Moderator, providing material and ending with a question and answer session. Then the closing event was guided by the Event Moderator. The Flowchart for the Implementation of Community Service Activities is shown in Figure 1.

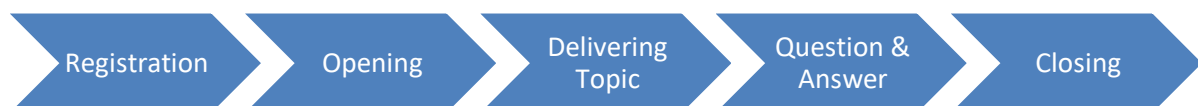


Figure 1. The Flowchart for the Implementation of Community Service Activities

Photo of the Community Service implementation at the Sei Tuan Village Hall, covering child growth and development. Initially, some participants were late to the session, but the participants were fully engaged and understood the speaker's presentation. The presentation lasted 20 minutes and included an assessment of child development. The implementation of Community Service in Child Growth and Development is shown in Figure 2.



Figure 2. Implementation of Community Service in Child Growth and Development

RESULTS AND DISCUSSION

The face-to-face Community Service activity included health education on Child Growth and Development using a Power Point presentation (PPT) and age and gender data collection. The event ran smoothly, despite some challenges. The details of the activity are as follows:

Table 1. Respondent Characteristics

Respondent Characteristics	Frequency (f)	Percentage (%)
Children Age:		

< 1 Years	18	42.85
> 1 - < 2 Years	9	21.42
> 2 - < 3 Years	6	14.28
> 3 - < 4 Years	4	9.52
> 4 - < 5 Years	5	11.90
Children Gender:		
Male	16	38.10
Female	26	61.90
Total	42	100
Mother's Gender:	42	100
Female		
Mother's Age:	3	7,1
21-25 Years		
26-30 Years	24	57.2
31-35 Years	15	35.7
Mother's Education Level:	14	33.3
Elementary		
Junior High School	13	30.9
Senior High School/Vocational	10	23.9
Bachelor or Master's degree	5	11.9
Mother's Occupation:		
Laborer	13	30.9
Farmer	13	30.9
Self-Employed	6	14.3
Private Employee	2	4.8
Housewife	8	19.1
Total	42	100

Table 1 shows that the majority of children aged <1 year (18) represent 42.85%, followed by children aged >1 year - <2 years (9) represent 21.42%. Gender-wise, the majority are female (26) and male (16) represent 38.1%. Table 1 also explains the gender of mother's are 42 mothers (100%). The majority of mother's ages are 26-30 years old (24) and represent 57.2%. The majority of mother's education levels are elementary school are 14 respondents (33.3%) and junior high school are 13 respondents (30.9%). The majority of mother's occupations are laborers and farmers, with 13 of each occupation representing 30.9%.

Table 2. Frequency Distribution of Mother's Knowledge Level Before and After Child Growth and Development Education.

Mother's Knowledge Level	Pretest		Posttest	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Good	5	11.9	26	61.9
Sufficient	18	42.9	16	38.1
Poor	19	45.2	0	0.0
Total	42	100	42	100

Table 2 shows that the majority of mother's knowledge before the child growth and development education session was poor with 19 respondents (45.2%), followed by sufficient with 18 respondents (42.9%). Meanwhile, after the posttest, the majority of mothers experienced a significant improvement, with 26 (61.9%) having good knowledge.

Childhood growth and development is a highly risky period in every child's life, so it is crucial to pay attention to all aspects that support and influence growth and development. Growth and development are two distinct yet interrelated and interdependent processes. Growth itself is defined as changes in size, magnitude, quantity, or dimension at the cellular, organ, and individual levels. Growth is quantitative and can be measured in units of weight (grams, kilograms), length (cm, m), bone age, and metabolic balance (calcium and nitrogen retention in the body). Development is the increase in the body's structural and functional capabilities, becoming more complex. Development involves the differentiation of cells, tissues, organs, and organ systems, each developing in such a way that each can fulfill its function. Early development encompasses several aspects of functional ability: cognitive, motor, emotional, social, and language. Development in this early phase will determine subsequent development (Satria, Aninora & Faisal, 2022).

Deficiencies in one aspect of development can affect other aspects. One of the most common problems during a child's growth and development is developmental delay. There are critical periods in a child's development, during which stimulation is essential to foster their potential. Optimal child development occurs when social interactions are tailored to their needs at various stages of development, including the progressive and qualitative aspects of environmental adaptation (Satria et al., 2022).

A child's quality is largely determined by the continuity of their growth and development, from the womb to the early years of life. The ages of 0-6 years are the time when the foundations of personality, thinking skills, skills, independence, social skills, and intelligence are formed. The role of parents, caregivers, and teachers in monitoring a child's growth and development is crucial, ensuring that developmental delays can be detected as early as possible.

A previous Community Service Program activity, held at Selamat Village Kindergarten, involved 20 parents. The results of the community service program showed that 9 respondents (45%) understood child growth and development based on the pretest (before education), while 19 respondents (95%) understood child growth and development based on the posttest. This outreach program is expected to help mothers continue to improve their knowledge and practice child growth and development monitoring (Fatmawati et al., 2023).

The community service program, conducted in Kampung Pandan, Kuala Lumpur, aimed to improve mothers' knowledge of child growth and development. The pretest showed that of the 10 mothers who participated in the program, 7 had poor knowledge and 3 had sufficient knowledge. The posttest results, conducted after the outreach program, showed that 10 mothers had good knowledge. Therefore, it can be concluded that after the community service program, knowledge increased following the child growth and development education (Sofiana, Indriyastuti, & Riyanti, 2024).

Previous research in Sidodadi Village, Teluk Pandan District, Pesawaran Regency. The results showed that there was an increase in the average knowledge score of Posyandu cadres before mentoring was 9.65 (SD = 2.96), and the average knowledge score of Posyandu cadres after mentoring was 13.25 (SD = 1.80). The average skill score of cadres before mentoring was 7.25 (SD = 2.02) and the average score after mentoring was 14.10 (SD = 0.91). It showed a significant difference in the knowledge and skills scores of respondents before and after mentoring with a value = 0.000 ($\alpha < 0.05$). So, there is an effect of mentoring on the knowledge and skills of cadres in Early Detection of Child Growth and Development. The community health center increased its training activities for Early Detection and Intervention Stimulation

for Child Growth and Development and provided routine assistance to integrated health post cadres (Sutrio et al., 2025).

A previous study in Langke Village, Gentuma Raya District, used a questionnaire with a total sampling of 35 respondents. The results showed that 8 respondents (22%) had good knowledge, 23 respondents (65.7%) had sufficient knowledge, and 4 respondents (11.4%) had insufficient knowledge. Based on occupation, almost all respondents were housewives (29 respondents) (82.9%), with the majority having a high school education (18 respondents) (51.4%), aged 17-23 and 24-29 years. It is recommended that mothers participate in programs at existing health facilities because maternal knowledge will determine their attitudes and behaviors in providing nutrition, affection, and the frequency of stimulation given to children under five years (Runtu, Rattoe, & Kalalo, 2021).

Previous research on early detection of growth and development among 94 mothers of children aged 1-4 years in the Lubuk Baya Community Health Center (Puskesmas) area showed that 69.1% of mothers had good knowledge, 12.8% had sufficient knowledge, and 18.1% had insufficient knowledge. The majority of mothers, 64.9%, had positive attitudes, while 35.1% had negative ones. This requires improvement and requires correction (Yulisa, 2024).

Community Service activities were carried out at the Munaja and Tulip Posyandu locations in the Working Area of the Kadolomoko Community Health Center for parents and children. There were 21 respondents (46.7%) with good knowledge, followed by 17 respondents (38.6%) with sufficient knowledge and 6 respondents (13.6%) with insufficient knowledge. Mothers' knowledge about child development is very important to guide mothers in stimulating gross motor development in toddlers. With good knowledge, it will create a supportive environment for their child's development process (Natsir, Sanuddin, & Zamli, 2025). It is recommended that comprehensive and consistent early detection of child growth and development be carried out.

Early detection of growth and development (DDTK) in children aged 0-6 years is crucial for identifying deviations or delays, allowing for prompt intervention to achieve a child's optimal potential. Routine checkups include physical measurements (weight, height, head circumference) and motor/language/social skills, which can be done at integrated health posts (Posyandu), community health centers, or hospitals. The main goal of early detection of child growth and development is to detect developmental abnormalities as early as possible so that intervention can be carried out immediately, especially during the golden age of the child's nerves. The recommended time for SDIDTK (Early Growth and Development Detection and Intervention Stimulation) checkups is every 3 months for toddlers aged 0-24 months, and every 6 months for children aged 24-72 months.

CONCLUSION

After this community service program, it is concluded that the majority of mother's ages are 26-30 years old were 24 respondents (57.2%). The majority of mother's education levels are elementary school are 14 respondents (33.3%) and junior high school are 13 respondents (30.9%). The majority of mother's occupations are laborers and farmers, with 13 of each occupation representing 30.9%. The majority of mother's knowledge on pretest was poor with 19 respondents (45.2%), followed by sufficient with 18 respondents (42.9%). The majority of mothers experienced a significant improvement on posttest, with 26 respondents (61.9%) having good knowledge. It is recommended that comprehensive and consistent early

detection of child growth and development be carried out.

REFERENCES

- Fatmawati, T. Y., Ariyanto, A., Efni, N., & Asparian, A. (2023). Edukasi pada ibu tentang pemantauan tumbuh kembang anak. *Jurnal Abdimas Kesehatan (JAK)*, 5(3), 546-551.
- Kementerian Kesehatan Republik Indonesia (Kemenkes RI). (2025a). *SSGI 2024: National Stunting Prevalence Drops to 19,8%*. Retrieved from https://www.badankebijakan.kemkes.go.id/en/ssgi-2024-prevalensi-stunting-nasional-turun-menjadi-198/?utm_source=chatgpt.com
- Kementerian Kesehatan Republik Indonesia (Kemenkes RI). (2025b). *SSGI 2024: Prevalensi stunting nasional turun menjadi 19,8%. Kementerian Kesehatan RI – SSGI 2024*. Retrieved from https://www.kemkes.go.id/id/ssgi-2024-prevalensi-stunting-nasional-turun-menjadi-198/?utm_source=chatgpt.com
- Kementerian Kesehatan Republik Indonesia (Kemenkes RI). (2022). *Pedoman pelaksanaan stimulasi, deteksi, dan intervensi dini tumbuh kembang anak (SDIDTK)*. Jakarta: Kemenkes RI.
- Kumalasari, D. N., Devi, N. L. P. S., Rasmita, D., Hatala, T. N., Widiyastuti, N. R., Torano, F. M., ... & Tambunan, D. M. (2023). *KEPERAWATAN ANAK: Panduan Praktis untuk Perawat dan Orang Tua*. PT. Sonpedia Publishing Indonesia.
- Natsir, N., Sanuddin, S., & Zamli, Z. (2025). Penyuluhan Edukasi Pengetahuan Ibu tentang Pertumbuhan, Perkembangan dan Tumbuh Kembang Pada Bayi dan Balita di Wilayah Kerja UPTD Puskesmas Kadolomoko. *Jurnal Pengabdian Masyarakat Bhinneka*, 4(1), 307-311.
- Pemerintah Provinsi Sumatera Utara (Pemprov Sumut). (2024). Data prevalensi stunting Sumatera Utara berdasarkan SKI 2023. Pemprov Sumut – Prevalensi Stunting Sumut. Retrieved from https://sumutprov.go.id/artikel/artikel/prevalensi-stunting-di-sumut-berhasil-turun-signifikan-jadi-18-9-pj-gubernur-optimis-capai-target-2024?utm_source=chatgpt.com
- Runtu, A. R., Rattoe, A., & Kalalo, R. S. (2021). Gambaran Tingkat Pengetahuan Ibu Tentang Tumbuh Kembang Balita Di Desa Langke Kecamatan Gentuma Raya Provinsi Gorontalo. *Jurnal Health Sains*, 2(2), 153-160.
- Satria, E., Aninora, N., & Faisal, A. (2022). Edukasi Pemantauan Tumbuh Kembang Anak Umur 3-5 Tahun. *EBIMA: Jurnal Edukasi Bidan Di Masyarakat*, 3(1), 25-28.
- Sofiana, J., Indriyastuti, H. I., & Riyanti, E. (2024). Edukasi dalam upaya optimalisasi tumbuh kembang anak. *Jurnal EMPATI (Edukasi Masyarakat, Pengabdian dan Bakti)*, 5(1), 9-14.
- Sutrio, S., Muliani, U., Sumardillah, D. S., & Rahmadi, A. (2025). Pengaruh Pendampingan Terhadap Pengetahuan dan Keterampilan Kader Posyandu Dalam Deteksi Dini Tumbuh Kembang Anak Di Desa Sidodadi Kec. Teluk Pandan Kab. Pesawaran. *JURNAL ILMIAH OBSGIN: Jurnal Ilmiah Ilmu Kebidanan & Kandungan*, 17(1), 26-34.
- Yulisa, N. D. (2024). Gambaran Pengetahuan dan Sikap Ibu Balita tentang Deteksi Dini Tumbuh Kembang Anak di Puskesmas Lubuk Buaya. *Repository Universitas Andalas*.