

Health Promotion to Increase Knowledge and Skills of Posyandu Cadres in Stimulating Toddler Development

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ABSTRACT

Posyandu is a community health center extension that provides integrated health services and monitoring undertaken by and for the benefit of the community. Posyandu cadres interact with the community the most, giving them a strategic advantage and an effective platform to spread health-related messages. Good cadre skills are required for this so that they can motivate the community in their working areas. The study discovered that 55.3% of Posyandu cadres in Saptomulyo Village lacked knowledge, and 65.9% lacked skills in stimulating toddler growth and development. This problem can be solved by promoting health through training, specifically through additional material distribution with demonstrations and practices. Cadres performing stimulation at their respective posyandus are assessed directly. Community service results revealed that ten cadres (41.47%) had very poor, and three (12.50%) had very good knowledge scores. Two people received the lowest post-test score, 8.33%, while sixteen received the highest score, excellent, 66.67%. The average pre-test score is 5.72, with a 2.94-point increase to the average post-test score of 8.67. According to the post-program evaluation, six cadres had lower skill scores, twelve had sufficient skill scores, and six had good skill scores, with no very poor or very good scores. It is suggested that the Saptomulyo Village apparatus keep monitoring cadre activities and providing complete infrastructure facilities for stimulating toddler growth and development.

KEYWORDS

Health promotion;
Knowledge;
Skills;
Stimulation of growth



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1. Introduction

Growth stimulation is an activity that promotes fundamental skills in young children so that they can grow and develop to their full potential [1]–[3]. Every child needs consistent stimulation as early as possible and at every opportunity [4]. Gross and fine motor skills must always be stimulated, trained, and developed through a variety of age-appropriate activities and games [5]. Children will grow and develop at their best when given appropriate and safe stimulation [6]. The skills need to be stimulated so they can become skilled and agile in the various movements required to adapt to their environment in the future. Lack of stimulation in children can result in developmental deviations and even lifelong disorders [7]. The right stimulation will help toddlers develop their brains in a way that is age-appropriate for their movement, speech, and language abilities, socialization, and independence [8]. Doctors, midwives, nurses, and nutritionists are trained health professionals who can stimulate and identify early signs of child growth and development. They can also collaborate with educators for early childhood education (PAUD), childcare parks (TPA), children's social institutions, and trained cadres.

Research on child development is one of the references in this community service program. Durgannavar investigated the impact of breakfast consumption on the nutritional adequacy of Indian schoolchildren [9]. Desai investigated the theoretical aspects of temporomandibular joint compressive stress and mandibular growth [10]. Arabin examined maternal stress awareness, offspring consequences, and the need for early intervention to boost stress resilience [11]. Isawa studied the biological effects of anti-RANKL antibodies and zoledronic acid on tooth growth and eruption in growing mice [12]. C. Vanderwall discovered that the z-score of BMI in obese children was a poor predictor of adiposity changes over time [13]. Czosnykowska-Ukacka studied the macronutrient composition of breast milk during long-term lactation [14]. Alkharashi analyzed the prevalence of vitamin D deficiency in Saudi

children at the Armed Forces Hospital and the Nursing Hospital in Riyadh, Kingdom of Saudi Arabia, and its association with type 1 diabetes mellitus [15]. Stergiopoulos investigated changes in facial expression after functional orthopedic treatment for Class II division 1 malocclusion [16]. Das reviewed an article by Das on Dental Implants in Pediatric Dentistry. Pembrey [18] explored whether intergenerational epigenetic inheritance contributes to cultural continuity [17]. Research on child development is one of the references in this community service program. Pembrey explored whether intergenerational epigenetic inheritance contributes to cultural continuity [18].

Mäkitie studied early-onset osteoporosis [19]. The effect of long-chain polyunsaturated fatty acids on infant development was investigated by Komarova [20], the effect of milk supplementation vs. sugar-sweetened beverages on bone development in prepubertal pigs as a model for children by Batty [21], the effect of plyometric exercise on shoulder internal rotation in adolescents following overuse injury by Bagago [22], and the effect of various processing methods on the chemical and functional properties of complementary foods made from a millet-soybean flour mixture by Ikegwu [23]. Kim investigated the evaluation of an automated superimposition method based on several landmarks for growing patients [24]. Baldeón analyzed the relationship between the free amino acid content of breast milk and infant gender and weight gain during the first four months of lactation [25]. Stark analyzed the effect of the FBN1 variant on pediatric Marfan treatment [26]. Kämpe examined how genetic variation in GC and CYP2R1 affects 25-hydroxyvitamin D concentrations and skeletal parameters in 24-month-old Finnish children [27].

Li conducted a retrospective study with a mean follow-up of 4.2 years of gradual ulnar elongation in Masada type I/IIb deformity in patients with hereditary multiple osteochondromas [28]. Amir investigated the influence of childcare attendance on the development of the gut microbiome in early childhood [29]. Sherar Sherar observed the human biology of physical activity in growing children [30]. Aggarwal reviewed the article on custom eye prosthesis replacement time in children [31]. Saeed used antioxidants to prevent valproic acid-induced prenatal developmental disorders in rats [32]. Schmidt conducted interventional treatment options in children with extracranial vascular malformations [33]. Is a high milk intake beneficial to children's health? Kwon studied the National Population-Based Observational Cohort Study [34]. Batra investigated the effects of a twin-block appliance on the pharyngeal airway, sleep pattern, and lung volume in children with Class II malocclusion [35]. Influencing Factors and Correction Ratio in Genu Valgum or Varum treated by percutaneous epiphysiodesis using transphyseal screws, as investigated by S.-W. Lee [36]. Oh explored the food allergy status and parental burden of preschool children in the Jeju region [37].

Posyandu cadres are the group that interacts the most with the community and has a very strategic position and an effective way to communicate messages related to health issues within the posyandu and in the surrounding work area. Thus, they need to have good skills to be able to motivate the community in their working areas. Based on the results of research conducted by Islamiyati and Sadiman on factors related to the skills of cadres in the stimulation and early detection of toddler growth and development in the Sitejokencono Health Center area (2020), it was found that 55.3% of Posyandu Cadres in Saptomulyo Village had less knowledge about growth stimulation, and 65.9% had fewer skills in the stimulation of growth and development of toddlers.

Saptomulyo Village is about four Km from the Sitejokencono Health Center and has one village health unit with 1 Village Midwife. It has one childhood education (PAUD), five integrated health stations (posyandu) incorporating 24 active cadres, with 18 cadres having high school education (72%) and two graduates (8%). Good coordination between cadres, village midwives, and midwives' coordination at the Puskesmas is one of the capitals in facilitating the training activities to be carried out. A preliminary study conducted in Saptomulyo Village showed that there had never been any training for Posyandu cadres to increase knowledge and skills in stimulating the growth and development of toddlers. The frequency of implementation of stimulation, early detection, and intervention of child growth and development is only two times a year in which the coverage reaches 64%.

2. Method

To improve the knowledge and abilities of Posyandu Cadres in the stimulation of toddler growth and development, the training method—specifically, the delivery of new material with demonstration

and practice—was used. The cadres involved in stimulation at each Posyandu were directly assessed as part of the evaluation process.

Two lecturers from the Metro Midwifery Study Program, one midwife from the village, two assistant midwives, and five students from the program served as the officers and implementers of the activities. All officers continuously carry out their assigned tasks according to their respective job descriptions, beginning with task division, execution, and ending with evaluation.

This service activity was completed through several sequential steps, beginning with preparation (administration, media, officers, and targets). The participants received the materials in Saptomulyo Village Hall on Saturday, September 25, 2021. A pretest had previously been given by distributing a questionnaire with 15 questions. The activity was continued on Tuesday, September 28, 2021, at the Saptomulyo Village Hall with actual demonstrations and practice. Lastly, each Posyandu evaluated the cadres' capacities to promote the growth and development of young children (Parkit Posyandu on Monday, October 4, 2021, and Bangau Posyandu on Tuesday, October).

3. Results and Discussion

Table 1 presents the cadres' assessment of the understanding of stimulating toddlers' growth and development. In the pre-test, ten cadres (41.6%) were found to have inadequate knowledge, four (16.67%) insufficient, two (8.33%) sufficient, five (20.83%) good, and three (12.50%) excellent. In the post-test, three cadres (8.33%) were found to have sufficient knowledge, six (25%) good, and sixteen (66.67%) excellent. The average pre-test value was 5.72, and the post-test value was 8.67, with an increase of 2.94 points.

Table 1. Pre and post test of toddler growth and development knowledge

No	Score	Pre Test		Post test	
		Number of cadres	%	Number of cadres	%
1	Poor	10	41,67	0	0
2	Insufficient	4	16,67	0	0
3	Sufficient	2	8,33	2	8,33
4	Good	5	20,83	6	25,00
5	Excellent	3	12,50	16	66,67
	Amount	24	100,00	24	100,00

Due to limited capabilities and inadequate Posyandu infrastructure, the results of the pre-test of cadres' abilities to stimulate growth and development remained very poor because they had never stimulated the growth and development of toddlers during Posyandu activities due to limited cadres' capabilities and Posyandu infrastructure. Additionally, there was no designated area or equipment for stimulation. Following the training, the cadres have begun stimulating the under-five children by outfitting the facility with subsidized equipment from the Health Institute Tanjungkarang, some of which was paid for with village funds by the head of the women's empowerment mobilizing team.

Activities involving material presentation were carried out to enhance the cadres' knowledge. Figure 1 depicts the material delivery activity. The Posyandu cadres were receiving the information being presented by the community service team. They also performed demonstrations and practices, as seen in Figure 2. It shows the team practicing with the Posyandu cadres. Figure 3 depicts the practice evaluation conducted at one of the Posyandus to determine whether the cadres were acquainted with the material acquired.



Fig. 1. Material delivery activities

Health promotion, according to the World Health Organization (WHO; et al., 2018), is the process of empowering people and communities to exert more control over the factors that affect their health and, as a result, improve. The goal of health promotion is to increase people's capacity to lead healthy lives, develop community-sourced health initiatives, and foster an environment that is supportive of the development and factors of these capacities. Activities aimed at promoting health as a behavioral strategy should focus on three factors: enabling, reinforcing, and predisposing factors. The goal of predisposing factor activities is to increase health knowledge and attitudes that are necessary for achieving healthy behavior.



Fig. 2. Demonstration and practice activities

The health promotion with health education is quite effective in raising cadres' knowledge and abilities about promoting toddlers' growth and development. It is in line with the claim that, according to the literature review, modeling can be used in health education to increase knowledge because it allows respondents to engage through senses—by seeing, reading, and participating in activities—in a way that would otherwise be impossible. According to the results of the service performed by Wijhati et al. at Posyandu Ponowaren Gamping Sleman, there is an increase in cadre knowledge of 10–30 points (with tens points) after the growth and development detection training. It is consistent with the service that has been performed, in which there is an increase in cadre knowledge by 2.94 points (with unit points) after receiving training or counseling.



Fig. 3. An activity at a Posyandu

4. Conclusion

The community service program of health promotion through training to increase knowledge and skills of Posyandu cadres about stimulation of toddler growth and development in Saptomulyo Village, Kotagajah District, Central Lampung has been implemented well. There is an increase in cadre knowledge about stimulation of child growth and development. In the pre-test, ten cadres (41.6%) have inadequate knowledge, four (16.67%) insufficient, two (8.33%) sufficient, five (20.83%) good, and three (12.50%) excellent. In the post-test, three cadres (8.33%) have sufficient knowledge, six (25%) good, and sixteen (66.67%) excellent. The average pre-test value was 5.72, and the post-test value was 8.67, with an increase of 2.94 points. It is suggested that the Health Institute Tanjungkarang's midwifery study program carry out community service regularly with a topic tailored to the issues faced at the location. The Saptomulyo Village apparatus needs to follow up on this community service project by monitoring the cadres' activities and providing infrastructure support at the Posyandu so that toddler growth and development stimulation activities can continue as usual.

Acknowledgment

Thanks are addressed to the Director of Poltekkes Tanjungkarang and his staff, the Head of Saptomulyo Village and his apparatus, the Chair of the Saptomulyo PKK Mobilization Team, the Saptomulyo Village Midwife, the Head of the Metro Midwifery DIII Study Program and all parties who helped carry out this Community Service activity.

Author Contribution

The activity plan in order to implement the solutions offered that there are five series of activities, namely coordination, logo design, socialization of covid, marketing, and marketing education.

Funding

Thanks are addressed to the Director of Poltekkes Tanjungkarang and his staff, the Head of Saptomulyo Village and his apparatus, the Chair of the Saptomulyo PKK Mobilization Team, the Saptomulyo Village Midwife, the Head of the Metro Midwifery DIII Study Program and all parties who helped carry out this Community Service activity.

Conflict of Interest

The authors declare no conflict of interest.

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