



## THE EFFECTIVENESS OF POSYANDU CADRE EMPOWERMENT IN ENHANCING POSYANDU CADRE'S KNOWLEDGE AS A STUNTING PREVENTION EFFORT

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ABSTRACT	Keywords
<p>Stunting remains a significant nutritional challenge in Indonesia. Posyandu, a community-based healthcare initiative, plays a crucial role in stunting prevention. However, it is essential to empower the posyandu cadres to effectively address this issue. This study aims to assess the impact of empowering posyandu cadres on their knowledge, specifically in preventing stunting. This research employs a quasi-experimental design, utilizing a One-Group pre-posttest approach to evaluate the influence of educational interventions on cadre knowledge. The study population consists of 70 posyandu cadres within the Kaubun Health Center's working area. The entire population was included as study participants. Data collection involved the use of questionnaires, PowerPoint presentations (PPT), and leaflets. Statistical analysis was conducted using the Wilcoxon test. The statistical analysis using the Wilcoxon test yielded a p-value of 0.000, indicating a significant positive effect of education on the knowledge of posyandu cadres regarding stunting. Education has a notable impact on enhancing the knowledge of posyandu cadres in relation to stunting prevention. The assessment of posyandu cadre knowledge revealed an increase in their average scores related to stunting prevention. This improvement is evident in the average scores before and after receiving education, with an increase of 1.98.</p>	<p><b>Stunting prevention, Posyandu cadres, Empowerment, Knowledge enhancement</b></p>

### INTRODUCTION

Globally, stunting is one of the Sustainable Development Goals (SDGs). Indonesia is working towards achieving SDG 2, which aims to end hunger, achieve food security and improved nutrition, and promote sustainable agriculture. This includes efforts to reduce stunting by 2025, closely related to SDG 3, ensuring healthy lives and well-being for all ages (Nirmalasari, 2020). Stunting remains a major nutritional challenge in Indonesia, with the Southeast Asia region having one of the highest prevalence rates worldwide

(31.9%), second only to Africa (33.1%). Indonesia ranks sixth in Southeast Asia, with a prevalence rate of 36.4% (WHO, 2018).

Based on the 2018 Basic Health Research (Riskesdas) data, stunting in Indonesia stands at 30.8%, significantly higher than the 2024 National Medium-Term Development Plan (RPJMN) target of 19% (PPN/Bappenas, 2020). Prevalence rates in East Kalimantan have decreased from 28.1% in 2019 to 22.8% in 2021, lower than the national average of 24.4%. However, some districts in East Kalimantan still report high stunting rates, with Kutai

Timur having the highest at 27.5%, followed by Penajam Paser Utara at 27.3%, and Kutai Kartanegara at 26.4%. These findings are from the SSGI survey conducted by the Ministry of Health in collaboration with the Central Statistics Agency (BPS) (PPN/Bappenas, 2020).

Stunting is defined as a condition where a child's height or length is below the standard for their age (Kemenkes RI, 2018). It results from various factors, including socioeconomic conditions, maternal nutrition during pregnancy, childhood illnesses, and inadequate nutritional intake. Stunting's effects are long-term and can include impaired physical and cognitive development, negatively impacting a child's future opportunities (Rahayu, 2018).

Stunting often goes unnoticed because it lacks immediate symptoms like diseases. However, it can have long-term consequences on a child's life, including reduced learning ability due to cognitive development deficits. Addressing stunting should begin well before a child is born (during the 1000 days period) and even during adolescence to break the cycle of stunting (Rahayu, 2018). Posyandu, as a community-based health initiative, can play a crucial role in this effort.

To reduce stunting rates, healthcare workers like village midwives and posyandu cadres play a vital role in providing health education to pregnant mothers and parents of young children. Posyandu Cadres are individuals chosen or appointed due to their capabilities to lead Posyandu development in a specific area or village (Kemenkes RI, 2018). However, the limited knowledge and skills of these cadres in stunting prevention have not effectively addressed the issue. Therefore, empowering posyandu cadres is essential to improve their knowledge and skills in stunting prevention (Apriani, 2022).

The effectiveness of Posyandu services relies heavily on the active involvement of cadres, especially in monitoring child growth and development. Cadres have specific responsibilities, including data collection, weighing and measuring children, recording data in the Healthy Growth Card (KMS), providing supplementary foods and vitamin A, and

conducting nutrition education. Cadres should also refer children to health centers if they experience consecutive weight loss or failure to gain weight in two consecutive months (Kemenkes RI, 2018).

Kader kesehatan, also known as village health cadres, posyandu cadres, or PKK cadres, are community members who voluntarily empower their own communities, primarily in the health field. Their roles in stunting prevention include providing supplementary foods, distributing vitamin A, conducting nutrition education, making home visits, and serving as health promoters in the community (Herlina, 2021). Structured and comprehensive empowerment of these cadres can enhance public health through the dissemination of health information (Rodiah et al., 2016).

Training for these cadres is often hindered by the fact that the majority (76.7%) are homemakers, 60% have a secondary school education, and their ages range from 35 to 60 years. Additionally, three factors contribute to the ineffectiveness of cadre education: insufficient training, funding constraints, and a lack of technical guidance. Intensive training for cadres not only improves their skills but also enhances their knowledge (Herlina, 2021).

Preventing stunting is a collective responsibility, and posyandu cadres, as community representatives, play a significant role in implementing effective interventions to reduce stunting among children. In the Kaibun Health Center's working area, there are 70 posyandu cadres, but only 35% actively participate in stunting prevention activities. Therefore, empowering these cadres is crucial to promote stunting prevention behaviors. Based on this background, the researcher is interested in conducting a study on "The Effectiveness of Posyandu Cadre Empowerment in Enhancing Posyandu Cadre's Knowledge as a Stunting Prevention Effort in the Kaibun Health Center's Working Area."

## METHOD

The research design employed in this study is a Quasi-experimental design

with a One-Group pre-posttest approach to assess the impact of education on cadre knowledge. The research was conducted at Kaubun Health Center from January to March 2023. The population in this study consisted of 70 posyandu cadres in the Kaubun Health Center's working area. Total sampling was used as the sampling technique, resulting in a sample size of 70 respondents. Data collection in this research involved primary data obtained through direct observation of respondents using instruments such as PowerPoint presentations (PPT), leaflets, and questionnaire sheets on cadre knowledge about stunting. The validity of hypothesis testing greatly depends on the quality of the data used in the analysis. The hypothesis testing in this research will not be meaningful if the data are not reliable. Subsequently, data processing starts with editing, coding, processing, and cleaning. Data analysis in this study used the T-Test. Paired sample T-Test was applied if the data distribution is normal, and the Wilcoxon test was used if the data distribution is not normal.

## RESULTS

**Table 1. Frequency Distribution of Respondent Characteristics Based on Age, Education, Occupation**

Variable	Category	Frequency	Percent (%)
Age	18-25 years	54	77,1
	26-32 years	16	22,9
Education	Elementary-Junior High School	35	50,0
	Senior High School	35	50,0
	High School/Diploma/Bachelor's Degree	58	82,9
Occupation	School/Diploma/Bachelor's Degree	12	17,1
	Housewife (IRT) Teacher		
<b>Total</b>		<b>70</b>	<b>100</b>

Source: Primary Data

Based on Table 1, it is shown that the characteristics of the respondents based on age mostly fall into the 18-25 years category, with 54 individuals (77.1%). Regarding education, there is an equal distribution between Elementary-Junior High School and Senior High School/Diploma/Bachelor's Degree, each with 35 individuals (50.0%).

The most dominant occupation is homemaker, with 58 individuals (82.9%).

**Table 2. Average Knowledge Scores of Respondents Before Empowerment**

	N	Mean	Standard Deviation	Min-Max
Pre test	70	5,39	0,708	4-7

Source: Primary Data

Table 2 shows that the average knowledge score of respondents before empowerment was 5.39, with a minimum score of 4 and a maximum score of 7, and a standard deviation of 0.708.

**Table 3. Average Knowledge Scores of Respondents After Empowerment**

	N	Mean	Standard Deviation	Min-Max
Post test	70	7,37	0,820	6-9

Source: Primary Data

Table 3 shows that the average knowledge score of respondents after empowerment was 7.37, with a minimum score of 6 and a maximum score of 9, and a standard deviation of 0.820.

**Table 4. The Influence of Education on Posyandu Cadres' Knowledge at Kaubun Health Center**

Empowerment	N	The Influence	Total	Mean P-Rank Value
Pre test	70	Down	1	7,50
Post test		Up	66	34,40
		Steady	3	0,000

Source: Wilcoxon Test

Based on Table 4, the research results indicate that almost all respondents experienced an increase in knowledge scores after the education, which is 66 individuals with a mean rank of 34.40 and a p-value of 0.000. This means that there is a significant influence of education on posyandu cadre's knowledge about stunting.

## DISCUSSION

The research results show that almost all respondents experienced an increase in knowledge scores after education, totaling 66 individuals. Statistical

testing using the Wilcoxon test yielded a p-value of 0.000, indicating the significant influence of education on the knowledge of posyandu cadres regarding stunting. The evaluation of posyandu cadre knowledge indicates an increase in the average knowledge score on stunting prevention. This is evident from the average knowledge scores before and after education, which increased by 1.98.

Consistent with previous research conducted in the Biringkanaya and Mamajang districts, media-based education has proven effective in increasing cadre knowledge about stunting, resulting in a 26% increase in cadre knowledge after nutrition education based on media (Hartono et al., 2020). Another study on the enhancement of posyandu cadre knowledge through health education using leaflets also showed positive changes in cadre knowledge following health education (Sari & Hanifah, 2018). Likewise, research conducted in Manado city demonstrated the effectiveness of education through counseling and leaflet distribution in promoting positive attitudes towards stunting prevention ( $p=0.000$ ), with knowledge scores increasing from 51.6 before education to 54.8 after education (Sewa, Tumurang, & Boky, 2019).

Stunting is a condition characterized by the failure to achieve linear growth (height) due to nutritional status. It is defined by a child's height-for-age z-score (HAZ) below -2 standard deviations from the median. Stunting typically becomes apparent after the age of 2 and results from chronic malnutrition, causing affected children to be shorter than their peers of the same age (Sutriyawan, Kurniawati, Rahayu, & Habibi, 2020). Previous research has shown that stunting is not only caused by chronic malnutrition but can also be attributed to the lack of maternal knowledge. The likelihood of stunting is 3.6 times higher among mothers with low knowledge levels (Sutriyawan & Nadhira, 2020).

The provision of education to improve knowledge and attitude changes among posyandu cadres was conducted through video conferences and leaflets. This method was effective in increasing

knowledge and changing attitudes among cadres. The paired t-test analysis resulted in a p-value of ( $p=0.029$ ) for knowledge and ( $p=0.000$ ) for attitudes. This indicates the success of media-based education in changing the mindset of those who were previously uninformed. This is in line with previous research stating that health education involves providing assistance from counseling officers, where they deliver unbiased information and offer emotional support, enabling individuals to recognize themselves and their problems, ultimately leading to informed and confident decision-making (Sari & Hanifah, 2018).

The involvement of cadres in implementing stunting programs aligns with the pillars of stunting mitigation in Indonesia, particularly the third pillar involving convergence, coordination, and consolidation of national, regional, and community programs. The Ministry of Villages, Development of Disadvantaged Regions, and Transmigration (Permendes PDRT No. 19 of 2017) emphasizes community involvement in health promotion and the healthy living movement. This includes the active participation of posyandu cadres in posyandu cadre meetings (Afifa, 2019). Cadre involvement in stunting prevention necessitates equipping them with sound knowledge and positive attitudes. One strategy to enhance knowledge and attitudes is through health education (Mulyawati, Kuswardinah, & Yuniastuti, 2017).

Media-based education has been shown to enhance knowledge. Effective media can convey messages and reach their intended audience successfully. The delivery of these messages through posters, leaflets, and multimedia is expected to be an effective way to promote healthy lifestyle behaviors (Hartono, Andini, Sartika, & Hasanah, 2020). Previous research has also indicated that knowledge about stunting can be improved through education (Arsyati, 2019), and attitude improvement can be achieved through media-based health education (Sari & Hanifah, 2018).

## CONCLUSIONS

The influence of education on posyandu cadre's knowledge about stunting is evident. The evaluation of posyandu cadre knowledge indicates an average increase in knowledge scores regarding stunting prevention. This can be seen from the average knowledge scores before and after education, which increased by 1.98.

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