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## **Stunting Coaching Training for Midwives and Cadres about Stunting Prevention and Management in the First 1000 Days of Life**

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### **Abstract**

*Stunting* is a problem of chronic malnutrition caused by a lack of nutritional intake in the past and a failure to achieve physical development as measured by height for age. This research aims to analyze the effect of stunting coaching training on the knowledge and skills of midwives and cadres. This research was conducted in Tarutung Regency. The research used a quasi-experimental method with a "Pretest-Posttest One Group Design" design. The target selection for training participants was purposive, namely midwives and cadres in stunting locus areas with the highest percentage of stunted toddlers. The sample in this study was 15 people (9 people were midwives, and 6 were health cadres). The evaluation results were analyzed using the Paired T-Test with the SPSS Version 22 application. The research results show that Training for midwives and health cadres saw an increase in the average knowledge score of 34.67, and all training participants were in the excellent knowledge category regarding stunting coaching training. The results of statistical tests using paired t-test statistics show a difference in the average knowledge of stunting coaching training participants before and after the Training with p-value = 0.001. Midwife and cadres always provide outreach in the form of information and education about stunting so that mothers with toddlers can participate or attend to listen to the outreach to motivate them to want to prevent stunting. Researchers also hope that families can provide good emotional, informational, and instrumental support to mothers to create healthy behavior and prevent stunting.

**Keywords:** coaching, midwife, cadre, training, stunting

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## **Introduction**

Indonesia is the country with the second highest prevalence of stunting after Cambodia. Nutrition monitoring data (2016), 8.9 million children experienced suboptimal growth or 1 in 3 children experienced stunting, more than 1/3 of children were under 5 years old with below average height. Riskesdas 2018, the prevalence of stunting in toddlers is 30.8% and the prevalence of toddlers is 29.9%. North Sumatra's stunting prevalence of 25.8% is above national data of 24.4% and North Tapanuli (Taput), one of 14 districts with a stunting prevalence of 20-30%(National, 2018).

Stunting is an indicator of the level of growth failure at the first 1,000 days of life (Purwanti, 2021), most of which are the result of poor nutrition and infection. According to the World Health Organization (WHO) Child Growth Standards, stunting is based on the index of body length compared to age (PB/U) or height compared to age (TB/U) with a z-score limit of less than -2 SD. Indonesia ranks fifth among countries with the highest burden of stunting among children under five(Perumal et al., 2018; Titaley et al., 2019).

Several studies state that factors causing stunting both in the world and in Indonesia include lack of knowledge about stunting, food insecurity, premature birth or LBW, exclusive breastfeeding, management of children's MPASI, environmental sanitation, low family socio-economic status. Research also found a relationship between household wealth index and stunting. The presence of more than one child under five years old results in less than optimal breastfeeding and complementary feeding practices (Manaf, 2023). There is a strong relationship between stunting and consumption of various types of animal foods. Other factors that cause stunting include infections in the mother, teenage pregnancies, short birth intervals, infections in toddlers such as diarrhea, economic conditions, work and family livelihoods. Apart from that, low access to health services, including access to sanitation and clean water, is a factor that greatly influences children's growth (Komalasari et al., 2020).

In dealing with stunting, the government has issued Presidential Decree Number 72 of 2021 concerning the acceleration of stunting reduction considering that Presidential Decree Number 42 of 2013 concerning the national movement to accelerate nutrition improvements has not been accommodated effectively. North Tapanuli Regency also issued Regent Regulation No. 49 of 2020 regarding stunting prevention through specific nutrition and nutrition-sensitive interventions.

Midwives as the front guard in preventing and controlling stunting have a very important role(Elly Susilawati et al., 2022; Himawaty, 2020). The results of Heni Wulandari and Istiana Kusumatuti's research in 2020 entitled The Role of Midwives, the Role of Cadres, Family Support and Maternal Motivation on Maternal Behavior in Stunting Prevention based on the Smart PLS output, the R Square value of maternal behavior in preventing stunting in toddlers is 0.808, meaning that the role midwives, the role of cadres, family support and maternal motivation influence maternal behavior in preventing stunting by 80.84%. The role of midwives influences the role of cadres because with a good midwife role, the role of cadres will also be good and will run as it should, so that all health activities such as posyandu can also be carried out well.(Wulandari & Kusumastuti, 2020).

The influence of various variables makes the role of the midwife the most influential variable among other variables in influencing changes in maternal behavior. Several research results prove that the role of midwives has a positive effect on family support (Syafitri et al., 2023). The role of health workers in exposing the community to disease prevention programs is very important to change community behavior in preventing disease in the research area. Strategies and efforts are needed to reduce the prevalence of disease by involving the community through empowerment programs (Aisyah & Suparni, 2022; Faiza & Fithr, 2020).

Cadres are volunteer workers selected by and from the community who serve in the community. Nutrition activities at posyandu are one of the main activities and are generally a priority in implementing posyandu activities. The active role of health cadres in nutrition services is very important to improve the quality and nutritional status of the community, especially maternal and child health. Whether these cadres are active or not depends on the Posyandu cadre's knowledge. Posyandu cadres are health providers who are close to the target activities of the Posyandu, and cadres meet face to face more often than other health workers. Health cadres are community members selected from and by the community who are willing and able to work together in various community activities voluntarily (Zakaria et al., 2023). Midwives and cadres as the main implementers of stunting prevention and control in the community need skills in understanding all the problems of mothers and families so that they can then design and carry out effective stunting prevention and control interventions.

## **Literature Review**

Research results from (Wulandari & Kusumastuti, 2020) with the title of the research *The Role of Midwives, the Role of Cadres, Family Support and Maternal Motivation on Maternal Behavior in Stunting Prevention*. This research aims to determine the direct and indirect influence and magnitude of the role of midwives, the role of cadres, family support and maternal motivation on maternal behavior in preventing stunting in toddlers at the Nanga Mau Community Health Center, Sintang Regency in 2019. The research method used is quantitative using a design. cross-sectional. The number of respondents was 65 mothers with toddlers. The data obtained shows that maternal behavior variables in preventing stunting in toddlers at the Community Health Center are influenced by the role of midwives (16.70%), the role of cadres (21.35%), family support (19.66%), and maternal motivation (23.13. %). The direct influence of maternal behavior in preventing stunting is 80.84%, and the indirect influence is 12.95%. The conclusion of this research states that the most dominant variable influencing maternal behavior in preventing stunting in toddlers is the variable of maternal motivation (Laksmi, 2023). Suggestion, hopefully this research can increase the participation of related parties, and that we all care more about health, especially stunting so that the stunting rate can continue to decrease.

Apart from that, research results from (Aisyah & Suparni, 2022) with the title: *Collaborative Role of Midwives in Stunting Prevention in the New Adaptation Era*. The main key to preventing stunting with successful interventions is to play a collaborative role. The contribution made by midwives in preventing stunting is quite large (Azhar, 2023). This

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research aims to determine the determinants of the collaborative role of midwives in preventing stunting in the new adaptation era. This type of research is non-experimental quantitative, the design used is analytical observational with a cross sectional approach. The total population in this study was 456 midwives, the sampling technique used proportional random sampling, namely 95 midwives representing 27 community health centers in Pekalongan Regency. Data were collected using a questionnaire in the form of questions that had been tested for validity and reliability, the data analysis used was in the form of univariate, bivariate and multivariate with test results using logistic regression. The results in this study showed a significant relationship between intervention coverage ( $p=0.001$ ), standardization of Delima midwives ( $p=0.002$ ) and knowledge ( $p=0.001$ ) with the collaborative role of midwives in preventing stunting. It is hoped that midwives will be able to improve their performance by always being up to date with new knowledge by participating in training, so that their performance will improve in midwifery services in general and stunting prevention services in particular.

### **Research Method**

The research was conducted in Tarutung District, North Sumatra. The research used a quasi-experimental method with a "Pretest-Posttest One Group Design" design. The training method used was a question and answer lecture and on the last day of the training, stunting coaching practice was carried out. The training was carried out for 2 days where before and after the training a pre-test and post-test evaluation was carried out to measure the level of knowledge of midwives and training participant cadres using a questionnaire. The target selection for training participants was purposive, namely midwives and cadres in stunting locus areas with the highest percentage of stunted toddlers. The sample in this study was 15 people (9 people were midwives, 6 people were health cadres). The evaluation results were analyzed using the Paired T Test with the SPSS Version 22 application. The following are the Stunting Coaching training materials:

Table 1. Stunting coaching training materials

<b>NO</b>	<b>Day</b>	<b>Material</b>
<b>1</b>	First	Prevention and Management of Stunting in Pregnancy
		Prevention and Management of Stunting in Children
		Preconception, Pregnancy, Infant and Child Nutrition
		Analysis of Stunting Problems in 1000 HPK
		<i>Organizational Citizenship Behavior</i> (OCB) in Improving the Performance of Midwives and Cadres
<b>2</b>	Second	Maternal and Family Psychology
		Emic View
		Effective Communication in Stunting Counseling
		Coaching Stunting
		Stunting Coaching Practice

## Results

### Characteristics of Stunting Coaching Training Participants

The following Characteristics of Stunting Coaching Training Participants are as follows:

Table 2. Characteristics of Stunting Coaching Training Participants

Education	Amount	Percentage (%)
SMA/SMK	5	33.3
Diploma III (DIII)	7	46.7
Bachelor degree)	3	20.0
Age		
33-37	6	40.0
38-42	2	13.3
43-47	2	13.3
48-52	4	26.7
53-57	1	6.7
Work		
Health Midwife	9	60.0
Health Cadre	6	40.0
Work experience		
1-7	6	40.0
8-14	4	26.7
15-21	3	20.0
22-28	1	6.7
29-35	1	6.7
How many times have you attended training on stunting?		
>0	7	46.7
1-2	2	13.3
2-4	6	40.0
Amount	15	100

Table 2 above shows that the education of the majority of midwives & health cadres is Diploma III education at 46.7%. The age of training participants between 33-37 is 40%. The majority of jobs are health midwives with 60%. The majority of training participants' work experience is 1 – 7 years. And participants have never attended training on stunting with a percentage of 46.7%.

**Table 3.** Distribution of Average Knowledge of Stunting Coaching Training Participants Before and After Training (n=15)

Variable	Mean ± SD	Mean Change ± SD	p value*
Knowledge			
Before	56.26 ± 17.334	-34.67 ± 9.705	0.001
After	90.93 ± 7.629		

\* difference within groups (before and after) using paired t test, at significance level of 5%

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Table 3 above can be seen that after training midwives and health cadres for 2 days there was an increase in the average knowledge score of 34.67 and all training participants were in the good knowledge category regarding stunting coaching training. The results of statistical tests using paired t test statistics show that there is a difference in the average knowledge of stunting coaching training participants before and after the training.

### **Discussion**

The intervention provided in this research was stunting coaching training. This training aims to analyze the effect of stunting coaching training on the knowledge and skills of midwives and cadres. The lack of targeted acceptance by midwives and cadres as well as the lack of motivation of mothers and families in preventing and overcoming stunting make this training a very important intervention.

Results of training implementation on Table 3 shows that after training midwives and health cadres for 2 days there was an increase in the average knowledge score of 34.67 points and all training participants were in the good knowledge category regarding stunting coaching training. The results of statistical tests using paired t test statistics show that there is a difference in the average knowledge of stunting coaching training participants before and after the training.

Previous research has proven that training can improve cadres' knowledge and attitudes, so that cadres can be empowered to accompany pregnant women in providing nutrition and health education to prepare for healthy pregnancies to prevent stunting. Cadre training is effective in increasing cadres' knowledge and abilities, so that by empowering the community they can prevent stunting (Anggreyenti et al., 2022; Simbolon et al., 2021). Community service activities carried out in Jatinagor District, Sumedang Regency also show that the stunting prevention movement through training increases the knowledge of posyandu cadres and through National Health Day (HKN) events can increase community empowerment in preventing stunting. The significant increase in the average community knowledge score was due to the excellent acceptance of the material on stunting prevention (Simbolon et al., 2021).

Community service activities carried out in Pinrang Regency also showed that health cadre training activities increased knowledge about stunting by 81.3%. Health cadre outreach and training activities can improve the ability of posyandu cadres to understand stunting and how to detect toddlers at risk of stunting. Community service activities carried out in Jatinagor District, Sumedang Regency also showed an increase in cadres' knowledge after training on stunting (Patimah et al., 2020).

Training activities for cadres are effective activities for refreshing the knowledge and skills of cadres, so that cadres are more enthusiastic in carrying out their duties at the posyandu. Nutrition and health education activities as an effort to prevent stunting in pregnant women through training, if carried out on an ongoing and scheduled basis, can increase the understanding of a person or group of people which will later have a positive impact on existing nutritional problems. Positive knowledge is obtained from the results of knowing when

someone carries out the process of sensing certain objects through the process of seeing and hearing(Wijayanti & Fauziah, 2019).

The better the knowledge and attitudes of cadres can have a positive effect on cadre skills. To continue to improve the knowledge and skills of cadres in assisting mothers/families targeted by stunting, this can be done through training and mentoring. This was also proven by the training and mentoring activities that posyandu cadres participated in in Tuksono Hamlet, which were effective in increasing knowledge about nutritional problems, educational counseling for toddlers, and skills in monitoring toddler growth through anthropometric measurements and how to interpret the results of anthropometric measurements.

Empowering cadres as a community group through training has proven effective in increasing the knowledge and skills of health cadres to detect the risk of stunting incidents. Improvement efforts needed to overcome stunting include efforts to prevent and reduce direct disturbances (specific nutrition interventions) and efforts to prevent and reduce indirect disturbances (sensitive nutrition interventions). Specific nutritional intervention efforts are focused on the First 1,000 Days of Life group, namely pregnant women, breastfeeding mothers, and children 0-23 months, because the most effective prevention of stunting is carried out in the first 1,000 days of life (golden period or critical period/windows of opportunity) (Indonesian Ministry of Health Data and Information Center, 2016). Failure to grow (growth faltering) will cause a child to be short in stature, this process starts from the womb until the age of two years. Once a child passes the age of two, it is too late to repair the damage of the early years. Therefore, the health and nutritional status of pregnant women plays an important role in preventing stunting. Improving the nutrition and health of pregnant women is closely related to the level of education, knowledge and attitudes towards compliance(Jati, 2018).

Midwives' abilities which include knowledge, skills and behavior are aspects that must be fulfilled in their competence as a midwife. Midwives have an important and significant influence on medical outcomes and women's birthing experiences(Aisyah & Suparni, 2022; Sormin, 2023). The midwifery profession requires knowledge, competence, self-confidence and skills. Midwives must include theoretical knowledge, practical skills, then midwives must interact with women personally and professionally. The main key to preventing stunting with successful interventions is to play a collaborative role. The contribution made by midwives in preventing stunting is quite large. The existence of Delima Midwives is the basis for the professionalism of midwives in providing services that comply with standards, especially in stunting reduction programs.(Aisyah & Suparni, 2022).

Midwives are one of the personnel who provide supervision to ensure that nutrition and reproductive health education programs continue through the first 2 years of a baby's life, the growth and development of the baby, can help prevent stunting. The collaborative role of midwives in preventing stunting includes primary, secondary and tertiary activities. Primary activities in their collaborative role in implementing the first 1000 days of life program, secondary activities in improving the quality of young women, and tertiary activities in empowering husbands, parents, teachers and teenagers. The Indonesian government divides intervention into two frameworks for handling stunting, namely specific and sensitive nutritional interventions. 16 The interventions carried out by midwives in the context of their

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collaborative role in preventing stunting include sensitive and specific interventions (Wulandari & Kusumastuti, 2020).

One form of informal education that midwives participate in is by participating in training. Training will increase the knowledge and skills possessed by midwives by prioritizing practice and theory. Training will help a midwife to develop various skills in the work currently being carried out and in the future. The results of this research do not show a relationship between the training that midwives take part in and their collaborative role, this is related to the implementation of training, seminars are conducted online, thereby reducing the absorption capacity of midwives in capturing the knowledge gained during training. The research results show that the performance of midwives who have taken part in training tends to perform better than those who have not taken part in training. Many factors influence this, including the midwife's motivation to take part in the training, to gain knowledge or simply to obtain SKP, this will greatly influence the results obtained during the training. (Aisyah & Suparni, 2022).

### **Conclusion**

The research results show training for midwives and health cadres saw an increase in the average knowledge score of 34.67 and all training participants were in the good knowledge category regarding stunting coaching training. The results of statistical tests using paired t test statistics show that there is a difference in the average knowledge of stunting coaching training participants before and after the training with  $p\text{-value} = 0.001$ . Suggestion: Midwife and cadres to always provide outreach in the form of information and education about stunting, so that mothers with toddlers can participate or attend to listen to the outreach, so they are motivated to want to prevent stunting.

### **Declaration of conflicting interest**

The authors declare that there is no conflict of interest in this work.

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