

The Influence of Family-Based Assistance and Counseling on the Acceleration of Reducing Stunting among Toddlers in Medan Sunggal Subdistrict in 2023

Marliani¹, Eva Ratna Dewi², Retno Wahyuni³, Herna Rinayanti Manurung⁴, Rati Aksari Lumban Tobing⁵, Ester Junita Gultom⁶

^{1,2,3,4,5,6} Sekolah Tinggi Ilmu Kesehatan Mitra Husada Medan, Indonesia
marlianidady@gmail.com

Abstract

Accelerated reduction in stunting starts from the preconception period to the first 1,000 days of life. Teenagers, prospective brides/pUS candidates, pregnant women, breastfeeding mothers and children aged 0-59 months. Mentoring and counseling can contribute to increasing knowledge, attitudes and actions of families in preventing stunting. The problem of this research is what the effect of mentoring and counseling in families on accelerating the reduction of stunting in toddlers. The aim of this research is to determine the effect of family assistance and counseling on accelerating the reduction of stunting in toddlers. The urgency of this research is considered very high because it can be the basis for preparing a Government program to accelerate the reduction of stunting, the number of which is still very large, especially in Medan Sunggal Subdistrict. The mandatory output of this research is articles published in accredited journals 1-6. Additional output is publications in international journals and monographs. The level of technology readiness (TKT) resulting from this research is in the form of a report on family-based assistance and counseling to accelerate the reduction of stunting in toddlers in Medan Sunggal Village (until TKT 2). The achievements of TKT 1 are the study of scientific literature on the basic principles of technology (100%), an initial market survey has been initiated and assessed (100%), the potential for scientific applications for problem solving (100%). TKT 2 achievements are: Hypothesis has been formed (100%), research design development is in place (100%), research protocol (80%), and protocol has been reviewed by experts (80%) and so on.

Keywords

Mentoring; Counseling; reducing stunting; toddlers.



I. Introduction

The problem of malnutrition which is quite high in Indonesia at the moment is wasting, stunting in toddlers, anemia and chronic energy deficiency (CED) in pregnant women. Babies with low birth weight (LBW) can occur if pregnant women are malnourished, besides that toddlers can be malnourished and even stunted (2). Stunting is a condition of children who experience growth and development disorders due to poor nutrition, recurrent infections, and psychosocial stimulation. Inadequate is characterized by body length or height below standard (3). Stunting, wasting and underweight are three widely recognized indicators of children's nutritional status, indicating chronic and acute malnutrition respectively (4).

According to WHO, in 2020 the prevalence of stunted toddlers in the world was 22% or around 149.2 million toddlers experienced stunting (World Health Organization, 2021). Meanwhile, according to the Indonesian Nutrition Status Survey (SSGI) in 2022, there was a decline in the stunting rate in Indonesia, namely from 24.4% in 2021 to 21.6% in 2022. To achieve the target of 14% in 2024, a reduction of 3.8% per year is needed (5), B 30.8% of toddlers experience stunting (short and very short) in Indonesia, 10.2% of toddlers experience wasting (thin and very thin), 35.4% of adults have nutritional status (overweight and obesity) and 35.4% of pregnant women 48.5% suffer from anemia (6), Based on 2022 provincial data, the highest stunting rate is in East Nusa Tenggara Province with 35.3%, the lowest rate is in Bali Province at 8.0% while North Sumatra is 21.1% (7),

Stunting in Medan City continues to decline. Of the 550 children whose growth and development experienced problems due to chronic nutrition, there were 364 children. In 2023, the stunting rate will decrease again to 359 children (8). Stunting can be caused by direct and indirect factors. Direct causal factors that influence children's nutritional status and can have an impact on stunting are the practice of giving colostrum and exclusive breast milk, consumption patterns, and infectious diseases suffered by children, while access and availability of food as well as environmental sanitation and health are indirect factors that cause stunting (9), Through the Family Development, Population and Family Planning (Bangga Kencana) program implemented by the National Population and Family Planning Agency (BKKBN), the acceleration of reducing stunting is carried out through a family approach to prevent the birth of stunted babies. One of the factors that influences the quality of Human Resources is stunting. Accelerated reduction in stunting starts from the preconception period up to the first 1,000 days of life. Teenagers, prospective brides/prospective couples of childbearing age (PUS), pregnant women, breastfeeding mothers and children aged 0 (zero) to 59 (fifty nine) months are the target groups for the Acceleration of Stunting Reduction. Mentoring and counseling can contribute to increasing family knowledge, attitudes and actions in preventing stunting

The formulation of the problem in this research is how family-based assistance and counseling will influence the acceleration of stunting reduction in the Medan Sunggal sub-district in 2023.

1.1 Problem Solving Approach

The problem solving approach that will be carried out in Medan Sunggal Subdistrict is by providing assistance and counseling based on families at risk of stunting in accordance with the government program contained in Presidential Decree No. 72 of 2021 concerning the acceleration of stunting reduction.

1.2 State of the Art and Novelty

Family-based assistance and counseling is a comprehensive and effective intervention approach covering aspects of preparing for family life, fulfilling nutritional intake, improving parenting patterns, increasing access and quality of health services and increasing access to drinking water and sanitation. One of the most decisive interventions is exclusive breastfeeding starting with early initiation of breastfeeding (IMD) and monitoring the growth and development of toddlers. There are still many families who do not have knowledge about this. According to research by Sari (2022), there is a difference in the risk of stunting before and after providing assistance to families at risk of stunting. Research on the influence of family-based assistance to accelerate stunting reduction is still rarely conducted, the only ones available are community service reports. Mentoring programs by cadres and other teams have been carried out but it is necessary to analyze

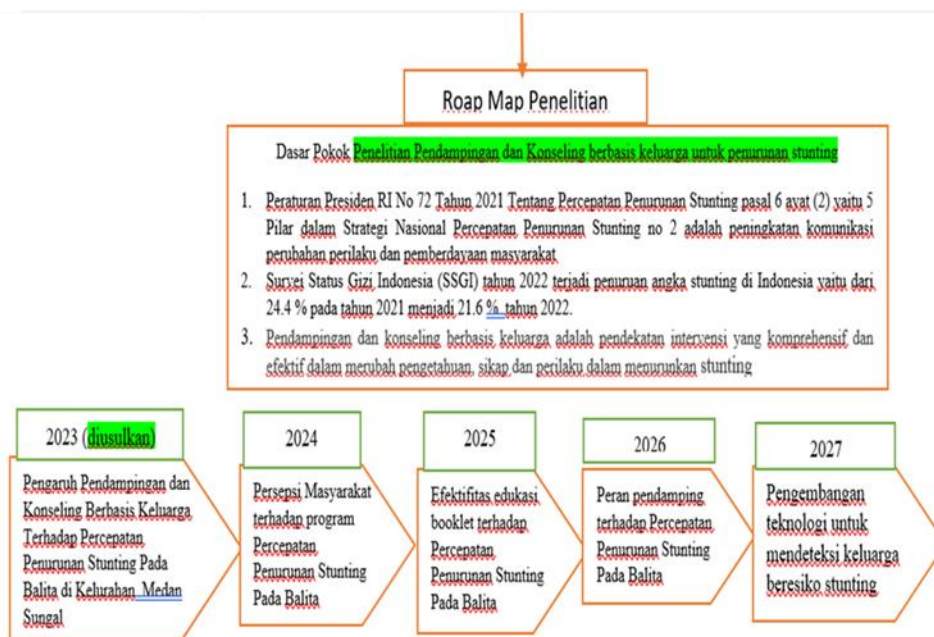
their influence on changes in knowledge, attitudes and behavior of families in reducing stunting so that it will help the relevant government formulate policies regarding reducing stunting.

1.3 Road Map

Road Map Penelitian



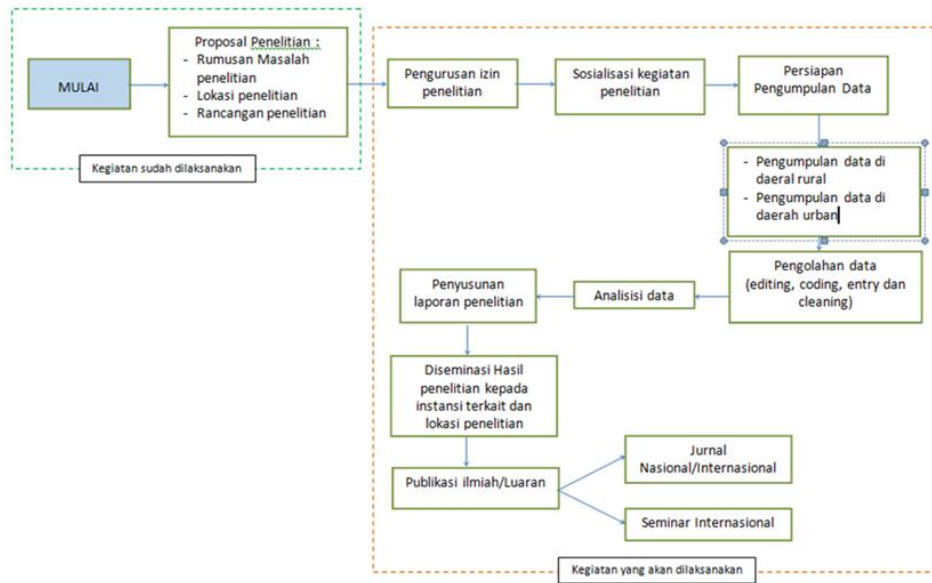
Keterangan: Pengaruh Pendampingan dan Konseling Berbasis Keluarga terhadap Percepatan Penurunan Stunting di Kelurahan Medan Sunggal Tahun 2023



II. Review of Literature

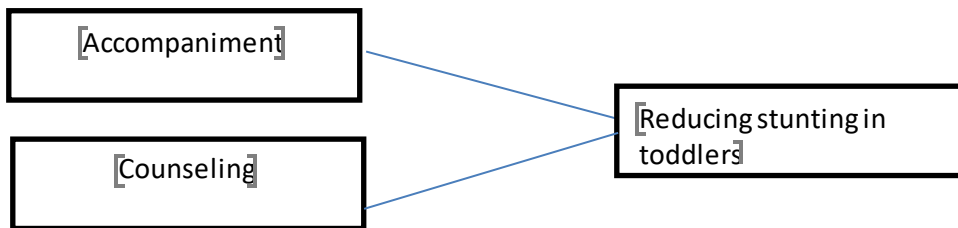
Methods or ways to achieve the goals that have been set are written in no more than 1000 words. This section can be supplemented with a research flow diagram that describes what has been carried out and what will be done during the proposed time. The flow chart format can be a JPG/PNG file. The research method must be created in its entirety with clear stages, starting from the beginning with the process and outcomes, and targeted achievement indicators which are reflected in the Budget Plan (RAB).

2.1 Flow Chart



2.2 Research Design

The influence of family-based mentoring and counseling on accelerating the reduction of stunting among toddlers in Medan Sunggal Village in 2023.



2.3 Type and Design of Research

This research is a quantitative study using a quasi experimental pre test and post test with control group design, to analyze the effect of mentoring and counseling on accelerating the reduction of stunting in toddlers. The intervention group will receive family-based assistance and counseling related to accelerating the reduction of stunting in toddlers and the control group will not be given any intervention by researchers. Before the intervention was carried out, a pre-test was carried out in the intervention group and control group, then family-based assistance and counseling was carried out. After 6 months of family-based mentoring and counseling activities were carried out, then a post test was carried out on both groups with the same questionnaire instrument as the pre test.

The research design model is as follows

R Case group $X1 \rightarrow X2 \rightarrow O1 \rightarrow Y1 \rightarrow Y2$

R Control group $X1 \rightarrow X2 \rightarrow O2 \rightarrow Y1 \rightarrow Y2$

2.4 Population and Sample

Experimental Population and Sample in the study were families in the Medan Sunggal sub-district area and met the inclusion criteria. The sample in this study was all families with babies aged 0-59 months in the Medan Sunggal Subdistrict area, totaling 20 people (total population) who were then divided into 10 control groups and 10 intervention groups. The sample in this study was families with babies aged 0-59 months. In the case

group, assistance and counseling interventions will be provided to accelerate the reduction of stunting in toddlers while the control group was not given any intervention.

2.5 Research Location

Carried out in Medan Sunggal Subdistrict, Deli Serdang Regency in 2023 in collaboration with Medan Sunggal Community Health Center through an MoU with the Medan City Health Service

2.6 Research Output

No	Outer Type	Achievement Indicators	Mandatory/additional
1.	Publication in accredited national journals ranked 1-6	Accepted	Must
2.	International Journal	Accepted	Addition
3.	Monograph Book	Certificate	Addition

2.7 Details of the Duties of Proposing Members

No.	Name	Position	Areas of expertise	Time allocation/ week	Task details
1.	Marliani, SST, MKM	Chairman	Midwifery	8 hours/week	<ol style="list-style-type: none"> 1. Coordinate and manage all research activities 2. Manage research permits 3. Processing and analysis of data 4. Preparation of reports 5. Preparing for Publication
2.	Eva Ratna Dewi, SST, MKes	Member	Midwifery	6 hours/Week	<ol style="list-style-type: none"> 1. Make bookkeeping 2. Preparation of tools and materials 3. Disseminated to Community Health Centers 4. Preparation of Reports 5. Preparing for Publication
3.	Retno Wahyuni, SST, MTr.Keb	Member	Midwifery	6 hours/Week	<ol style="list-style-type: none"> 1. Make bookkeeping 2. Preparation of tools and materials 3. Disseminated to Community Health Centers 4. Preparation of Reports 5. Preparing for Publication

4.	Levi Hernita Sitompul	Guidance Students	Midwifery	6 hours/Week	1. Distribute Questionnaires 2. Helping Process Data 3. Create documentation
5.	Ester Junita Gultom	Guidance Students	Midwifery	6 hour/Sun day	1. Distribute Questionnaires 2. Helping Process Data 3. Deliver letters 4. Create documentation

III. Result and Discussion

Stunting is a condition of children who experience growth and development disorders due to poor nutrition, recurrent infections, and inadequate psychosocial stimulation, characterized by their length or height being below standard. According to WHO, in 2020 the prevalence of stunted toddlers in the world was 22% or around 149.2 million toddlers were stunted. Meanwhile, according to the Indonesian Nutrition Status Survey (SSGI) in 2022, there was a decline in the stunting rate in Indonesia, namely from 24.4% in 2021 to 21.6% in 2022. To achieve the target of 14% in 2024, a reduction of 3.8% per year is needed. Accelerated reduction in stunting starts from the preconception period to the first 1,000 days of life. Teenagers, prospective brides/pUS candidates, pregnant women, breastfeeding mothers and children aged 0-59 months. Mentoring and counseling can contribute to increasing knowledge, attitudes and actions of families in preventing stunting. The problem of this research is what the effect of mentoring and counseling in families on accelerating the reduction of stunting in toddlers. In this way, we will find out the effect of family assistance and counseling on accelerating the reduction of stunting in toddlers. The results of this research can be the basis for preparing a Government program to accelerate the reduction of stunting, the number of which is still very large, especially in Medan Sunggal Village.

Stunting is a serious problem that affects children's growth and development. Efforts to prevent and overcome stunting need to start from the preconception period to the child's first 1,000 days of life (HPK). The following is a discussion of steps to accelerate stunting reduction at this stage, involving teenagers, prospective brides/brides of childbearing age (PUS), pregnant women, breastfeeding mothers, and children aged 0-59 months.

3.1 Teenagers and Prospective Brides/Prospective PUS

Adolescents and prospective brides and grooms (PUS) play an important role in the future health of the next generation. Education regarding balanced nutrition, the importance of family planning, and the health impacts on the fetus and future child need to be disseminated. Sexual and reproductive health education programs in schools can be an effective channel for conveying this information.

3.2 Pregnant Women

During pregnancy, routine pregnancy checks and nutritional counseling for pregnant women are very important. Appropriate nutritional supplements and fetal growth monitoring are the main focus. The stunting prevention program since this time has involved arranging nutritious food, treating malnutrition, and understanding the importance of adequate nutritional intake.

3.3 Breastfeeding Mother

Exclusive breastfeeding during the first six months of life is a very effective first step in preventing stunting. Support for breastfeeding mothers, education about correct breastfeeding techniques, and the formation of breastfeeding mother support groups can help create an environment that supports the practice of exclusive breastfeeding.

3.4 Children aged 0-59 months

For children aged 0-59 months, preventing stunting involves providing appropriate and nutrient-rich complementary foods. Mentoring and counseling programs for parents, nutrition education at posyandu, and regular monitoring of children's growth are important parts in dealing with stunting at this stage.

3.5 Discussion

Sunggal Village is one of 21 sub-districts in Medan City, North Sumatra Province, Indonesia. Medan Sunggal District borders Deli Serdang Regency to the west. Sunggal village has an area of 9.01 km², and the population density is 6,650 people/km². Meanwhile, in 2021, the population of this sub-district will be 135,406 people. Based on the data found, there were 150 toddlers in Medan Sunggal village. After carrying out the initial direct approach and observation, there were 15 toddlers or around 10% who experienced stunting. Then in the initial stage in January the researcher carried out an initial intervention, by carrying out 2 activities, namely:

a. Nutrition Counseling with Home Visits and Providing PMT Packages

When the counseling session begins, the main focus is to explore children's eating behavior problems. The health team asks about the causes of bad eating behavior, including whether the child regularly consumes adequate portions of vegetables, and looks for solutions that are appropriate to the child's condition and breastfeeding history. From this Nutrition Education activity, mothers of toddlers who experienced stunting responded well, there was a two-way interaction between the mothers and the Community Service team. The mothers showed enthusiasm in asking questions about nutrition and health related to parenting patterns. As a result, mothers understand well and develop follow-up plans, especially regarding feeding, with the aim of avoiding worse impacts. In terms of treating the illnesses they suffer from, these mothers are directed to utilize the available public health facilities, both at the Community Health Center and sub-district health centers. Providing PMT Package Assistance is part of the stimulation for families of stunted toddlers. The PMT packages provided include eggs, green beans and milk for toddlers. By providing this assistance, it has helped the families of stunted toddlers.

b. Practice of Making MP-ASI

Demonstrations and exercises in making Complementary Food for Breast Milk (MP-ASI) from local food ingredients were held for all participants, including mothers of toddlers and posyandu cadres. The participants diligently followed the practical steps for making MP-ASI and obeyed all the instructions given. Midwife Marliani, SST, MKM together with the team guided the participants during this process. When the resource person provided material, participants actively asked questions and showed a high level of curiosity, so that almost all participants were involved in the question and answer session. At the end of the community service activity session, an evaluation was carried out by asking questions and most of the participants were able to answer well. And the result of

the follow-up plan is that the mother will provide the best parenting style, especially in feeding with the concept of balanced nutrition.

Family-based assistance and counseling is an effective basis for reducing stunting. By understanding the family context, increasing knowledge, and stimulating behavior change, this program can have a significant impact in improving children's nutritional status. Regular monitoring and evaluation is key to ensuring the sustainability and effectiveness of these interventions.

The following is a discussion table based on the data you provided:

Table 1. Stunting Change Analysis before and after Assistance (January and August 2023)

Month	Total Number of Toddlers	Number of Stunted Toddlers	Stunting Percentage
January	150	15	10%
August	150	3	2%

In January, out of a total of 150 toddlers, 10% or the equivalent of 15 toddlers were identified as experiencing stunting. This stunting percentage is the baseline or initial condition before intervention. After assistance was provided, in August, the number of toddlers experiencing stunting fell to 3 or 2% of the total 150 toddlers. There was a significant decline from initial conditions in January.

These results show that family-based assistance has had a positive impact in reducing the percentage of stunting among toddlers in Medan Sungal Village. The decrease from 10% to 2% shows the success of the intervention in overcoming the stunting problem. Further analysis is needed to understand the factors contributing to this success, such as changes in diet, parental knowledge, or better child care practices.

V. Conclusion

Based on data analysis in January, out of a total of 150 toddlers in Medan Sungal Village, 10% or the equivalent of 15 toddlers were identified as experiencing stunting. This condition is the basis or starting point before intervention is carried out. After family-based assistance was carried out, in August, there was a significant decline where the number of toddlers experiencing stunting fell to 3 or 2% of the total 150 toddlers.

These results provide a positive picture regarding the effectiveness of family-based assistance in reducing the percentage of stunting among toddlers in this sub-district. The reduction from 10% to 2% reflects the success of the intervention in overcoming the stunting problem. It should be emphasized that this not only reflects statistical figures, but also has a concrete positive impact on the health and welfare of children in Medan Sungal Subdistrict.

However, to further understand this success, a more in-depth analysis of contributing factors is needed, such as changes in diet, increased parental knowledge about nutrition, or improved child care practices. This further analysis will provide a more comprehensive view of how family-based assistance can be an effective model in tackling the problem of stunting at the community level. Furthermore, these findings can become a basis for the development and expansion of similar programs in other areas to improve children's health more broadly.

References

- BKKBN Bengkulu 2022, Optimizing the Role of the Family Assistance Team, Efforts to Prevent Stunting from the Bottom Line. Article 21 June 2022. <https://bengkulu.bkkbn.go.id/opini-optimalkan-peran-tim-pendamping-famili-usaha-cepat-stunting-dari-lini-Bawah/>
- Fatmawati, Ningrum, et al (2022). Situation Analysis of Efforts to Accelerate Stunting Reduction Using an Approach to Families at Risk of Stunting (Case Study in Jombang Regency, East Java). Indonesian Nutrition Media (National Nutrition Journal). SP(1): 139–144
- Indonesian Nutrition Status Survey 2022. Ministry of Health RI
- Khan, Sadaf, et al (2019). Determinants of stunting, underweight and wasting among children < 5 years of age: evidence from 2012-2013 Pakistan demographic and health survey. BMC Public Health. (2019) 19:358. <https://doi.org/10.1186/s12889-019-6688-2>
- Laili Uliyatul, et al (2022). The Role of Family Companions in Reducing Stunting. Indonesian Nutrition Media (National Nutrition Journal). 2022.SP(1): 120–126
- Medan City Government (2023). Stunting rates are down. News 2 February 2023. https://portal.pemkomedan.go.id/berita/angka-stunting-turun-stay-359-anak-sekda-laksana-penanganan-cepat-komprehensif__read2663.html
- Oktaviani, et al (2022). Stunting Alert in Indonesia. We Write Foundation. Medan
- Ruswati, et al (2021). Risk Causes of Stunting in Children. Community Service Journal Vol.1 No 2 pp 34-38. University of Indonesia. Jakarta
- Sari. Dyah Wiji Puspita, et al (2021), Assistance for Families with Children at Risk of Stunting in Muktiharjo Kidul Village, Semarang. International Journal Of Community Service Learning Volume 5 Number 4 2021, pp 282-289