

EFFECTIVENESS OF THE "MATCHING" PROGRAM AS AN EFFORT TO REDUCE STUNTING IN BONCAH KESUMA VILLAGE, KABUN SUB-DISTRICT, ROKAN HULU DISTRICT

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ABSTRACT

Addressing stunting in Rokan Hulu Regency remains a top priority. Boncah Kesuma Village is one of the stunting hotspots designated by the Rokan Hulu Regent's Decree in 2023. The MATCHING Program (Memelihara Ayam peTelur CegaH stuntING – Raising Chickens to Prevent Stunting) is an innovation by the Boncah Kesuma Village government to accelerate stunting reduction, and it is the first village in Rokan Hulu Regency to implement the program. This program is carried out in collaboration with the Village Stunting Reduction Acceleration Team and the Toddler Family Group. The aim of this study is to assess the effectiveness of the "MATCHING" program in accelerating stunting reduction in the village. The research method employed is a qualitative approach, with data collection through interviews, observation, and documentation. The data analysis technique used in this study is qualitative descriptive analysis. The results indicate that the implementation of the "MATCHING" program to accelerate stunting reduction has been optimal, with positive impacts on health, economic, and social aspects. It is hoped that this program can serve as a reference for village governments throughout Rokan Hulu Regency, particularly for villages identified as stunting hotspots. By 2024, it is expected that the stunting rate in Rokan Hulu will be reduced to below the national target.

Keywords: Effectiveness; Laying Chickens; MATCHING Program; Stunting.

INTRODUCTION

Stunting is one of the most significant obstacles to producing quality human resources in every country. *Stunting* is a growth and development disorder experienced by children under five due to chronic malnutrition over a long period, recurrent infectious diseases, and lack of psychosocial stimulation (WHO, 2023). In Indonesia, the prevalence of stunting decreased from 24.4% in 2021 to 21.6% in 2022 (Sehat Negeriku, 2023).

Stunting is still a serious problem in Indonesia, including in Rokan Hulu Regency, where the prevalence of stunting, based on the Indonesian Nutrition Status Study (SSGI), reached 22% in 2022 and decreased by 6.1% to 15.9% in 2023 through the Indonesian Health Survey (SKI). Boncah Kesuma Village is one of the villages included in the Special Location Village for stunting based on a decree issued by the Regent of Rokan Hulu in 2024. Boncah Kesuma Village is one of the villages in Kabun District, Rokan Hulu Regency, Riau Province.

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Stunting has a negative impact that is quite important to overcome. Stunting, also known as short toddlers, is a priority health issue because nutritional problems seriously impact the quality of human resources (Yuwanita et al., 2021). Stunting is not only a failure to grow but will also affect mental health and intellectual intelligence. Many factors can influence children to become stunted. Factors that influence stunting are parenting, diet, parental knowledge related to nutrition, maternal and child health, *posyandu* (*Pos Pelayanan Terpadu*--community-based health effort post) participation, environmental factors, and exclusive breastfeeding (Saputri, 2019).

Parents who have good knowledge and understanding of nutrition will pay attention to the fulfillment of nutrition and nutritional intake of their children. Poor nutritional fulfillment is one of the leading causes of stunting. This condition of growth failure due to malnutrition occurs in the first thousand days of a child's life. The causes of this nutritional problem are related to food security, especially access to nutritious food (food), the social environment related to infant and child feeding practices (parenting), access to health services for prevention and treatment (health), and environmental health which includes the availability of clean water and environmental sanitation facilities (Ministry/Institution Implementing Child Prevention Programs/Activities, 2018).

Rahmadhita (2020) said that stunting in children is undoubtedly a problem that cannot be underestimated. The problem of stunting is a public health problem associated with an increased risk of disease, death, and growth barriers, both motor and mental. The research results by Margawati and Astuti (2018) show a correlation between the occurrence of stunting in children and parenting patterns from parents. This relates to how parents must understand child growth and development and provide balanced nutrition. One of the efforts that parents can make is to provide a variety of nutritious foods to children.

The selection of various food ingredients for toddlers' consumption is essential in meeting nutritional needs that can support their growth and development. The smaller the amount of nutrients toddlers consume, the greater the risk of these toddlers experiencing nutritional problems such as stunting (Afiah et al., 2020). Protein is one of the substances that can prevent stunting. Protein is a macronutrient that functions as a building block. Several studies have shown a good relationship between consuming protein and growth to prevent stunting. Low dietary protein intake has a chance of up to 89% of children suffering from stunting (Simorangkir et al., 2020).

Eggs are one of the animal foods consumed besides meat, fish, and milk. Eggs also have nutritional content that is easily obtained at a relatively low price, affordable, easy to obtain, and practical in serving, and can effectively prevent the risk of stunting in toddlers. Eggs are high in vitamins, protein, and minerals. There are many benefits of eggs, including maintaining brain and nervous system health because eggs contain choline. Choline is a critical component of fat-containing structures in membrane cells, whose flexibility and integrity depend on the supply of choline. Choline is essential for brain function and health (Ramadhani et al., 2019).

Prevention of stunting requires cooperation from various sectors in the Government and the Community. One of the efforts made by the Boncah Kesuma Village Government to accelerate the reduction of stunting is implementing the MATCHING program (Raising chickens to prevent stunting). This program was initiated by the village government, which collaborated with the village stunting reduction acceleration team and *Dasawisma* (groups made up of neighborhood women) as the intermediary. This program was the first in the Rokan Hulu Regency area. This research aims to see the MATCHING program's effectiveness in accelerating stunting reduction in Boncah Kesuma Village.

METHOD

The research method used is qualitative research. The data obtained in this study used interview techniques, observation, and documentation. The data analysis technique used in this research is qualitative descriptive analysis. Interviews were conducted with the village head, the person in charge of the program, community leaders, and parents who have stunted toddlers. The types of information explored were an overview of the program, program funding, program implementation, and the impact of the MATCHING program on efforts to reduce stunting in Boncah Kesuma Village. The analysis technique used in this research is the qualitative descriptive analysis technique. This research was conducted in March 2024 in Boncah Kesuma Village.

RESULTS

After interviews with related parties, the Boncah Kesuma Village Government initiated the MATCHING program through *dasawisma* activities. This activity aims to help provide animal protein for children under five in the village. It has been implemented since December 2023. Generally, members of *dasawisma* (groups made up of neighborhood women) come from a toddler family group members in the village. Specifically, this program is intended for families with children at risk of stunting in Boncah Kesuma Village.

Table 1 Results of measurements of toddlers at risk of stunting in Boncah Kesuma Village.

Num.	Name	Before intervention		After Intervention	
		Weight (kg)	Height (cm)	Weight (kg)	Height (cm)
1	Abidzar Pratama	7.1	68	9.2	81.8
2	Andika Afrizal	12.6	91	13.7	98.5
3	Akmal Alfarizi	11	83	11	83
4	Sabrina Salsabila	6.3	62.5	9.5	79.5
5	Ilyas	9.0	78	9.0	78
6	Ulfa	8.1	71	8.1	71
7	Anina Dwi Putri	8.8	70	8.8	70
8	Afra	8.0	69	10.5	81
9	Nur Alula Shasin	7.3	68	7.3	68
10	Zuan Artaya Shadiq	7.5	70	17.1	107.9
11	Ahmad Yuri Ayyubi	7.1	69	7.1	69
12	Alinggga Putra A	8.1	76	10.4	88.1
13	Ayyara Yuan	8.0	77.5	12.2	89.9
14	Aiza Zamira Agista	8.2	77.6	12.0	88.5
15	Saifullah	8.4	73	10.5	82.5
16	M Saggaf Adhitya	4.5	55	4.5	55
17	Aisyah Anindia	3.6	57	3.6	57
18	Annisa Nur Aini	7.5	75	8.2	85.5

Source: Boncah Kesuma Village Government Collection, 2024.

Based on the results of interviews with the team to accelerate stunting reduction in Boncah Kesuma village, there was a significant increase in weight among children at risk of stunting. Of the 18 children who were given intervention, 10 of them experienced significant weight gain.

Figure 1 The provision of food assistance from the MATCHING Program by the Village Head.



Source: Boncah Kesuma Village Government Collection, 2024.

DISCUSSION

The MATCHING program focuses on assisting in laying chickens for the Boncah Kesuma village community. In its implementation, this program is managed by each *dasawisma* spread across Boncah Kesuma Village. This program has various benefits in several aspects, namely health, economic, and social aspects.

1.1 Health Aspect

The Village government established the MATCHING program to accelerate the reduction of stunting in Boncah Kesuma Village. Until now, it has been formed in 19 *dasawisma*, which means there are 19 cages, and each cage has 19 laying chickens spread across Boncah Kesuma Village. The eggs harvested from the laying chickens are then given to families with children at risk of stunting. Based on interviews conducted with groups of laying chicken beneficiaries, the MATCHING program benefits groups and families at risk of stunting to fulfill daily nutrition. This is because the market only exists once a week, so the process of fulfilling food needs, especially animal protein, is rather challenging to find. In addition, the village's location, which is quite far from the city center, also causes many people to store durable raw food, so this program dramatically helps the community.

Eggs are a high source of protein, and consuming them can prevent stunting in children. This aligns with research conducted by Efendi et al. (2021), which states that the most accessible source of complex protein to manage is protein sourced from eggs. Every 100 grams or the equivalent of 2 eggs will contribute 12.4 grams of protein. The nutritional content of eggs includes carbohydrates, fat, phosphorus, potassium, sodium, riboflavin, thiamine, and vitamin A.

Infants need protein to synthesize new tissues necessary for growth as well as synthesize enzymes, hormones, and various other physiological bonds. Body protein increases by approximately 11% to 15% during the first year. The Recommended Dietary Allowances (RDA) of protein for infants aged 0-6 months is ten g/day, and for infants aged 7-11 months, it is 16 g/day, while the RDA of protein for children aged 1-3 years is 25 grams/day (Almatsier, 2017).

The results of research conducted by Afiah et al. (2020) found that toddlers who did not consume animal protein were nine times more likely to experience stunting than those who consumed animal protein sources in a week. Similar results were also shown by Azmy and Mundiastuti (2018), who found that toddlers have a 1.6 times greater risk of stunting if they consume insufficient protein nutrients. Therefore, mothers need to ensure that their children eat food that fulfills balanced nutrition until it runs out. Whether or not the food eaten by toddlers is finished depends on how the mother or mother's substitute carries out good feeding practices and fulfills balanced nutrition. Furthermore, research conducted by Masrul (2019) found that as many as

39.8% of stunted toddlers experienced difficulty eating. Parents' creativity in serving food directly impacts this. The higher number of stunted toddlers with difficulty eating compared to typical toddlers is related to the toddler's nutritional intake, which, if it occurs during the golden age period, can inhibit the child's brain and motor development.

Figure 2 Chicken and chicken eggs in the MATCHING program.



Source: Boncah Kesuma Village Government Collection, 2024.

1.2 Economic Aspects

For urban communities, the supply of eggs at low prices is a relatively easy thing. However, for underdeveloped rural communities, this program will undoubtedly produce food sources and supplies for the village, where the egg harvest will be a source of protein fulfillment for families and the surrounding community. In addition, some of the harvested eggs will then be sold to the surrounding community to increase family income and meet the nutritional needs of their family members. This is in line with research conducted by Rosnah et al. (2023), which states that the contribution of families in animal husbandry can increase income, so it can have an impact on increasing the ability to buy nutritious food and reduce the risk of stunting at the household level. Furthermore, Illahi (2017) explained that household economic status is considered to have a significant impact on the likelihood of children becoming short. In addition, the WHO recommends that low socioeconomic status be one of the measurement tools for stunting.

Rosnah et al. (2023) added that a family farming business can overcome the risk of stunting. Animal husbandry is a pet breeding business that can be utilized, one of which is poultry farming for the types of livestock businesses that can increase family income can be done by buying and selling livestock, which is carried out as a medium for earning income, processing livestock manure into compost, and selling products from these livestock.

Figure 3 Egg harvest as a support for the community's economy.



Source: Boncah Kesuma Village Government Collection, 2024.

1.3 Social Aspect

Social support and community empowerment are significant in providing proper nutrition, especially for children 0-23 months (Puspitasari et al., 2023). This program involves cooperation from various talents in the village. For this program to run well, parents must be educated about 1000 First Days of Life (1000 HPK) and the importance of achieving balanced nutrition to prevent stunting. With this education, parents' knowledge about stunting increases, and the MATCHING program can run optimally.

In addition, through this program, we can see an increase in community participation and empowerment, especially the *Dasawisma* group and the Toddler Family Development (BKB) group in carrying out the activities of this program. Raising laying chicken requires several workers so that the program can run optimally with the participation of group members. Then, through this program also, group meetings become routine so that social relations between community members are closely intertwined.

Figure 4 Education and regular meetings.



Source: Boncah Kesuma Village Government Collection, 2024.

CONCLUSION

Based on the interviews, observations, and documentation conducted, it can be concluded that the MATCHING program positively impacts efforts to accelerate stunting reduction. The Boncah Kesuma Village community experiences positive impacts on health, economic, and social aspects. Through this program, the people of Boncah Kesuma Village, especially families with toddlers at risk of stunting, get assistance to meet animal protein from eggs. According to several previous studies, consuming animal protein found in eggs is considered good in efforts to prevent stunting. In addition, eggs are easy to obtain and practical to serve.

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