Factors in Stunting Prevention with Family Planning: Literature Review

Dini Indo Virawati[1*], Ega Ersya Urnia[2], Cristinawati B/R Haloho[3]
[123]Midwifery Department of Polytechnic, Ministry of Health, East Kalimantan
**Corresponding author: diniindovira@gmail.com*

Abstract

The prevalence of stunting in Indonesia among children aged 0-23 months was approximately 32.9% in 2013. In 2016, the value decreased to 26.1% but increased in 2018 to 29.9%. The results of a nutrition study in Indonesia (SSGI) in 2021 show that the prevalence of stunting in toddlers is approximately 24.4%. In East Kalimantan, the prevalence of stunting is approximately 22.8%, which is lower than the national prevalence.

From the previous study, the prevalence of stunting increases in large families with more than 3 toddlers, mothers who visit health care less than 4 times during pregnancy, baby boys, children aged 12-23 months, and babies with low birth weight (<2500 g). One way to control the causes is by using contraception. This research used a literature review of three articles selected based on inclusion characteristics, namely articles published within the last 4 years, with an ISSN, and using a cross-sectional method. The results from the 3 articles indicate that there is a relationship between contraception and a decrease in stunting, and we suggest empowering contraception users to prevent stunting.

Keywords: *contraception, stunting*.

INTRODUCTION

A study of 2,443 children aged 6-16 years in 20 primary schools in Cambodia showed that stunted children had significantly lower scores than normal children in intelligence tests (Perignon et al., 2014). A case-control study in South Iran with 6-7-year-old children reported a significant relationship with chronic diseases.

A study in Nigeria reported that short toddlers suffered from diarrhea for two weeks prior to the survei (Akombi et al., 2017). Another study in Cambodia reported that stunting in children is related to infection caused by Strongyloides stercoralis and has chronic effects. Stunting in children carries a three times higher risk of death due to other infections, including sepsis, meningitis, tuberculosis, hepatitis, and cellulitis. This condition shows abnormal immunity in children who have poor growth.The prevalence of stunting in Indonesia aged 0-23 months was 32.9% in 2013, 26.1% in 2016, and increased to 29.9% in 2018. The 2021 Nutritional Status in Indonesia study showed that the prevalence of toddlers reached 24.4%, while in East Kalimantan it reached 22.8%.

The prevention strategy is related to several risk factors. Based on *the United Nations International Children's Emergency Fund* (UNICEF), the concept of stunting adjusted to the conditions in Indonesia states that access to nutrition, health facilities, feeding practices for infants and toddlers, hygiene, education, access to clean water in the family, and good sanitation are factors that affect stunting.

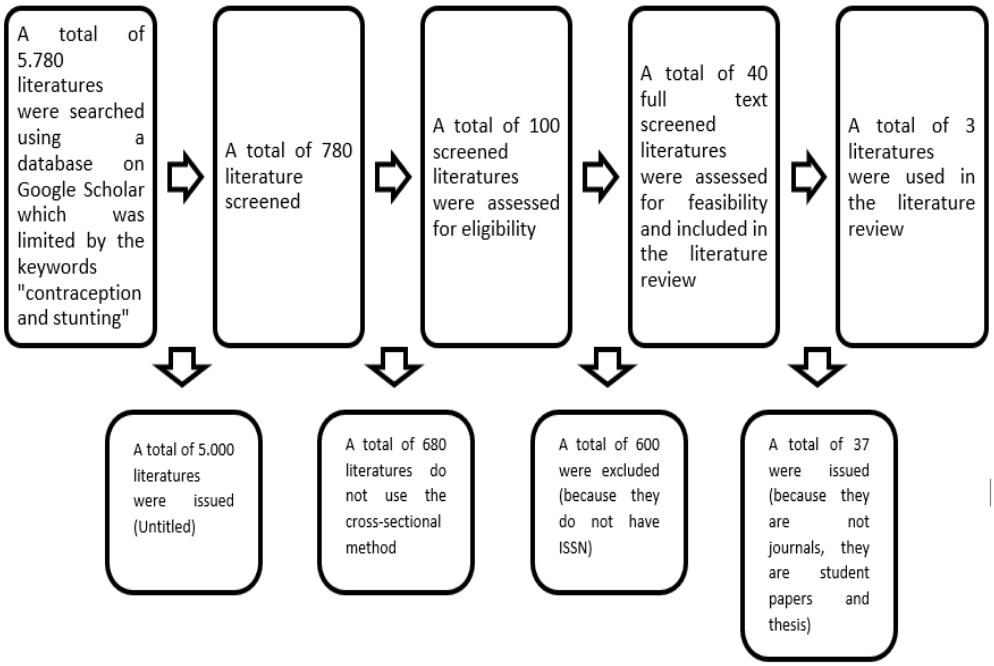
The risk of short babies increases in baby boys, children aged 12-23 months, babies with low birth weight (<2500), if children live together with more than three toddlers, more than 7 people in the house, and less than 4 visits to health care during pregnancy. These factors cause many children to suffer from malnutrition and stunting. In addition, birth spacing of less than 2 years affects nutrition in the family because it is difficult to care for children and provide a good atmosphere in the family. Therefore, contraception is a priority in Indonesia.

METHODS

This study was a literature review containing explanations of theories, findings, and contexts used as the basis for the research (Siregar, 2019). The Google search engine used was Google Scholar. This study used inclusion characteristics to filter articles published in the last 4 years (2018 to 2022), had an ISSN, and used a cross-sectional method because this study wanted to analyze risk factors with an effect on health.

The keywords were contraception and stunting. Stunting was the dependent variable and contraception was the independent variable. The search engine returned approximately 5,780 articles, which were then sorted to focus more on preventing stunting using contraception. After analysis, the researcher obtained three articles that were used in this study.

Fig. 1. Literature Review Schema



RESULTS

A. The analyzed results from the literature on Respondent Characteristics

Authors	Characteristics of Respondents		
	Age	Education	Employment
Rosmala Nur, Muhammad Rusydi, Rasyka Nuru Fajriah, Rahma Dwi Larasati, St. Ika Fitrasyah, Syaiful Hendra, Hajra Rasmita Ngemba	<21 years old (20.0%); 21–35 years old (47.5%); <35 years old (32.5)	Elementary School (25%); Junior High School (25%); Senior High School (50%)	White collar (17.5%); Business (15.0%); Housewife (67.5%)
Yena Wineini Migang, Cia Aprilianti, Nurolijah, M Dawam	8-16 years old (80.5%); 17 years old (19.5%)	No education (0.5%); Basic (25.8%); Intermediate (56.1%); Higher education (17.6)	None
Nina Fentiana, Endang L Achadi, Besral, Abram Kamiza, Trini Sudiarti	8-16 years old (82.19%); 17 years old (8.33%)	Primary School (15.47%); Junior High School (8.18%); Senior High School (43.68%)	None

B. The analyzed result of literature on population, sample, sampling technique and statistic

Author	Population	Sample	Sampling Technique	Statistics
Rosmala Nur, Muhammad Rusydi, Rasyka Nuru Fajriah, Rahma Dwi Larasati, St. Ika Fitrasyah, Syaiful Hendra, Hajra Rasmita Ngemba	150 couples	40 couples who had been married for 3 years at the Marawola Health Care Center in Sigi Regency	Purposive sampling	Chi-Square and Cross-Sectional
Yena Wineini Migang, Cia Aprilianti, Nurolijah, M Dawam	221 children born between 2012 and 2017, mothers and toddlers	163 born in the last 5 years before the survey (born in 2012 to 2016).	Purposive sampling	Chi Square and Cross-Sectional
Nina Fentiana, Endang L Achadi, Besral, Abram Kamiza, Trini Sudiarti	300,000 families	30,000 blocks of the 2018 National Economic and Social Survey	Probability proportional to size method	Chi Square and Cross-Sectional

C. The analyzed bivariate result of literature

Author	Independent Variable Contraception	Dependent Variable Stunting	P-Value
Rosmala Nur, Muhammad Rusydi, Rasyka Nuru Fajriah, Rahma Dwi Larasati, St. Ika Fitrasyah, Syaiful Hendra, Hajra Rasmita Ngemba	26.6	73.4	0.002
Yena Wineini Migang, Cia Aprilianti, Nurolijah, M Dawam	44.8	48	0.027
Nina Fentiana, Endang L Achadi, Besral, Abram Kamiza, Trini Sudiarti	11	60	0.040

DISCUSSION

A. The analyzed result from literature in Characteristics Respondents

Three articles analyzed revealed that most respondents were under 21 years old. Based on Mira Sani's study in 2019, the optimal reproductive age for women is 20-35 years old because that is the mature period for women, allowing them to have optimal energy. Younger mothers (under 20 years old) are still in their growth period, so their bodies are not mature enough, especially in terms of reproductive organs. At this age, blood circulation to the cervix and uterus is not perfect enough, so the distribution of nutrients from the mother to the baby can be disrupted. Women who are pregnant under the age of 20 lack the experience and knowledge to take care of their pregnancy, just like older mothers (over 35 years old), and they do not have the strength to take care of themselves during pregnancy. During this period, their bodies have a decreased ability to absorb nutrients,

resulting in low immunity and susceptibility to disease when they are over 35 years old (Sani et al., 2020).

From the three articles analyzed, it is known that most respondents had a high school education. Based on Yesi Nurmalasari in 2020, one of the parameters for sorting socioeconomic status is education level. Education levels can make it easier for individuals or societies to obtain information and apply it in their lives. Especially in caring for children, lower education and knowledge of mothers make it difficult for them to provide recommended nutrition. Previous studies have shown that a mother's education significantly affects how she cares for her family's nutrition, especially her children's nutrition, and that it increases the risk of stunting (Nurmalasari et al., 2020).

From the three articles analyzed, it is known that the job characteristics of the respondents are mostly housewives. Based on the results of Riza Savita's research in 2020, work factors affect knowledge; a person who works has wider knowledge than someone who does not work, because people who work more get more information. Maternal characteristics also need to be considered because stunting is chronic in nature, meaning that it arises as a result of long-lasting circumstances such as poverty, improper parenting due to the consequences of parents who are very busy at work, poor knowledge of nutrition as a result of low maternal education, frequent recurrent illness due to poor hygiene and sanitation.

B. The analyzed results of the literature on population, sample, sampling technique, and statistics

The results of the analysis of the three articles found that most of the population taken were Couples of Childbearing Age (PUS) who had children. Based on Setyorini Chess's research in 2022, one of the efforts in the strategy to accelerate stunting reduction is the family approach through mentoring families at risk of stunting in achieving the target, namely prospective brides (catin)/prospective couples of childbearing age (PUS), pregnant and lactating women up to postpartum, and children aged 0-59 months. Its implementation requires collaboration at the field level, consisting of midwives, cadres from the family empowerment and welfare driving team, and family planning cadres. The family is the first and foremost social environment for the growth and development of children. Children will develop optimally if they receive good stimulation from the family.

Utilizing various potential family resources to overcome problems is more effective than developing other potentials. Through mentoring activities for families at risk of stunting, it is an effective strategy to empower the community to increase family readiness in preventing stunting risks, which directly touches the community (Setyorini et al., 2022).

C. The analyzed bivariate result of literature

The results of the analysis of the three articles found that there was a relationship between the use of contraceptives and the decrease in the incidence of stunting. The results of Rosmela Nur's research show that there is a relationship between the use of contraceptives and the number of children born to married couples early. This is because most married women use it for fertility reasons. They consider themselves at risk of getting pregnant because of sex. These results are very accurate, and families with more than two children tend to adjust contraceptive use to limit births. Furthermore, the results show a link between contraceptive use and birth in Bangladesh. Increased access to the various methods available in nearby health facilities is critical to increasing their use among married couples in both rural and urban areas in Haiti. Women who have one to two children are more often found to have been in contact with birth control staff in the last six months. The use of modern contraceptives at the regional level is excellent for addressing the problem of birth in Ethiopia. Therefore, it is clear that low fertility is due to its use.

Meanwhile, according to the results of research from Yena Wineini Migang based on the variables of maternal health services, the subvariable category of contraceptive selection is the injectable category (72.3%). The consistency of contraceptives with injections is very low because the forgetting factor from the acceptor of birth control to the date of reinjection is very large,

especially in the midst of the Covid-19 pandemic, when leaving the house is strictly prohibited. The importance of choosing the right contraceptive is that it can prevent stunting. By limiting the number of births, parents can pay more attention to the growth and development of their children (Heeren et al., 2020).

Based on Nina Fentiana's study, stunting prevention shows that contraceptive use is directly related to reducing the prevalence of stunting at the district/city level. The use of modern contraceptives aims to regulate childbirth, achieve an ideal birth spacing, organize pregnancy, and realize a quality family. Planning for birth spacing allows enough time for the mother to recover after giving birth to provide good parenting for her child. The risk of stunting in children increases if the child lives in a household with more than three toddlers. Maintaining birth spacing is important in preventing stunting in children aged 0-23 months at the district/city level with a stunting prevalence of ≥30% (Fentiana et al., 2022).

CONCLUSION

Based on the results discussed regarding stunting prevention factors using contraceptives as a means of preventing pregnancy, it can be concluded that all studies mention the use of contraceptives as an important factor in preventing stunting.

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