

Antenatal Care Visits, Economic Status, and Nutritional Status of Pregnant Women on Stunting

Hani Septiani¹, Resna Litasari¹, Dini Ariani¹, Aulia Ridla Fauzi¹, Eris Risyani²

¹Departement of Midwifery STIKes Muhammadiyah Ciamis, Ciamis District, Indonesia

²Baregbeg Pubic Health Center, Ciamis District, Indonesia

Correspondence Author: Hani Septiani

Email: haniseptiani129@gmail.com

Address: Jl. K.H Ahmad Dahlan No. 20, Ciamis, West Java, Indonesia, +6285793323907

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ABSTRACT

Introduction: Stunting is a chronic malnutrition problem caused by insufficient nutritional intake for a long time due to improper feeding. Toddlers who are stunted have a decreased risk of intellectual ability and productivity, as well as an increased risk of developing degenerative diseases in the future. Stunting is caused by many factors, so it is necessary to evaluate the relationship between the incidence of stunting in children under five, including antenatal care visits, economic status, and the nutritional status of pregnant women. **Objective:** Stunting is one of the nutritional problems globally, especially in developing countries. The impact of stunting affects many aspects including disorders of gross and fine motor development, language development, and personal social. **Method:** This research is an analytical descriptive research. using a cross-sectional approach to assess risk factors for stunting. he population in this study were all mothers who had toddlers aged 24-60 months. The sampling technique used in this study was to use a purposive sampling technique of 40 mothers of toddlers. The economic status of the family has a significant influence on the incidence of stunting as evidenced by the p-value <0.05. **Result:** The statistical results show that the ANC has a significant effect on the incidence of stunting as evidenced by the p-value <0.05. The nutritional status of the mother based on MUAC has no significant effect on the incidence of stunting as evidenced by the p-value > 0.05 **Conclusion:** ANC visits, nutritional status and family economic status have a significant influence on the incidence of stunting in toddlers in Petirhilir Village, Working Area of the Baregbeg Health Center, Ciamis Regency.

Keywords: antenatal care, child development, economic status, nutritional status, stunted

Introduction

Stunting is one of the nutritional problems globally, especially in developing countries. The indicator used to identify stunting toddlers is based on the height-for-age index (TB/U) according to the WHO child growth standard with stunting criteria if the z score TB/U < -2 Standard Deviation (SD) (Mizobe et al., 2013; Aulia, 2016; Picauly, 2013). According to the Indonesian Ministry of Health, (2020) based on monitoring of nutritional status, it was found that 9.8% of toddlers had very short nutritional status (wasted) and 19.8% of toddlers had short nutritional status (stunted). The percentage of stunting in the toddler group was 29.6% while baduta 20.1%.

The Indonesian government has made policies to reduce the prevalence of stunting, including through improving nutrition for the first 1000 days of life (1000 HPK Movement) or Scaling Up Nutrition (SUN) (Harmiyanti, 2017; Khoeroh, et. al., 2017; Aulia, 2016; Fajrina, 2016).

The results of research conducted by Risna Halidi (2022), show that there is a significant relationship between pregnant women with Chronic Energy Deficiency (CED) and the incidence of stunting in toddlers aged 6-24 months. Mother's health is very important for the future health of her child. These intervention efforts include pregnant women by improving the nutrition and health of pregnant women, to monitor the health of the fetus in pregnant women can be done with Antenatal Care (ANC) (Rahayu, Atikah, Fahrini Yulidasari, Andini Octaviana Putri, 2018).

The impact of stunting affects many aspects including disorders of gross and fine motor development, language development, and personal social (Meishita Wulansari, Ni Luh Putu Hesti Mastuti, 2021). Gross motor development includes body movements carried out by large muscles, fine motor development, namely movements involving certain parts motorized by small muscles. Language development is assessed from the child's ability to respond to sound, follow orders, and respond to sound. The development of social behavior is assessed from the child's behavior in adjusting to the environment (Fauzi, Sunarni, & Solihah, 2021).

Stunting specifically can start from pregnant women. The nutritional condition of pregnant women, before becoming pregnant and even after, will determine the growth of the fetus. Pregnant women who are malnourished will be at risk of giving birth to babies with low birth weight, and this is the main cause of stunting (Triana & Haniyah, 2020). After birth, babies who are not breastfed properly will be at risk of suffering from various infectious diseases due to an inadequate nutritional and unhygienic diet. Feeding Infants and Children greatly determines the growth of children. After the age of 6 months, children need to get nutritional intake that can meet the needs of micro-nutrients, macro-nutrients and is safe (Barffour et al., 2019).

Mother's health is very important for the future health of her child. These intervention efforts include pregnant women by improving the nutrition and health of pregnant women, to monitor the health of the fetus in pregnant women can be done with Antenatal Care (ANC) (Rahayu Widaryanti, 2022).

Objective

This study aims to determine the effect of Antenatal Care (ANC) visits, education, economic status and nutritional status of pregnant women on the incidence of stunting in toddlers.

Method

This research is an analytical descriptive research. using a cross-sectional approach to assess risk factors for stunting from the history of antenatal care (ANC) visits, education, economic status and nutritional status of pregnant women. The population in this study were all mothers who had toddlers aged 24-60 months in Petirhilir Village, Working Area of the Baregebeg Health Center, Ciamis Regency, in 2019 as many as 175 people.

The sampling technique used in this study was to use a purposive sampling technique of 40 mothers of toddlers in Petirhilir Village, Working Area of the Baregebeg Health Center, Ciamis Regency in 2019. Twenty mothers of toddlers with stunting (case group) and 20 mothers who do not have toddlers with stunting (control group). Prior to conducting the research, an ethical test was carried out by the health research ethics committee of STIKes Bakti Tunas Husada (BTH) Tasikmalaya No.004/kepk-bth/II/2020.

Result

Table 1. ANC Visits, Economic Status and Nutritional Status of The Mother on The Incidence of Stunting

Variable	Category	Stunting		Normal		Total		Mean	P-value
		F	%	F	%	F	%		
ANC	Incomplete	16	40	4	10	20	50	1,50	0,045
	Complete	4	10	16	40	20	50		
	Total	20	50	20	50	40	100		
Economic Status	Low income	16	40	4	10	20	50	1,50	0,045
	Middle income	4	10	16	40	20	50		
	Total	20	50	20	50	40	100		
Mother Nutritional Status (Middle Up Arm Circumference/ MUAC)	< 23,5 cm	6	15	2	5	8	20	1,80	0,130
	≥ 23,5 cm	14	35	18	45	32	80		
	Total	20	50	20	50	40	100		

Antenatal Visits

The antenatal visits were categorized as complete and incomplete. Complete antenatal visits, namely pregnant women who make ANC visits ≥ 4 visits. Meanwhile, ANC visits were incomplete, namely antenatal visits < 4 times the mother visited a health facility to check her pregnancy. In this study, mothers with stunted toddlers had incomplete ANC visits (40%), complete ANC visits (10%). Incomplete ANC visits to normal toddler mothers (10%), complete ANC visits (40%). The statistical results show that the ANC has a significant effect on the incidence of stunting as evidenced by the p-value < 0.05 .

Economic Status

The economic status in this study is categorized into poor families and middle-class families. In stunted toddler mothers, the economic status of poor families (40%), middle-class families (10%). Meanwhile, mothers with normal economic status of poor families (10%), middle-class families (40%). The results of the statistical analysis show that the economic status of the family has a significant influence on the incidence of stunting as evidenced by the p-value < 0.05 .

Mother Nutritional Status

The nutritional status of pregnant women was measured by Mid Upper Arm Circumference (MUAC) < 23.5 and MUAC ≥ 23.5 . In mothers with toddlers who have stunted children, the nutritional status of pregnant women with MUAC < 23.5 (15%) and MUAC ≥ 23.5 (35%). In mothers with normal toddlers, the nutritional status of pregnant women with MUAC < 23.5 (5%) and MUAC ≥ 23.5 (45%). The statistical results show that the nutritional status of the mother based on MUAC has no significant effect on the incidence of stunting as evidenced by the p-value > 0.05 .

Discussion

Antenatal Visits

The statistical results show that the history of ANC has a significant effect on the incidence of stunting, as evidenced by the p-value of 0.05. Research conducted (Hutasoit, Utami, & Afriyiliani, 2020) found a significant relationship between antenatal care visits and stunting with a p-value of 0.000 ($p < 0.05$). During ANC visits, pregnant women will receive a thorough examination of their pregnancy, receive nutritional counseling, receive folic acid and iron supplements, as well as proper health education. So that all of these can prevent mothers from experiencing anemia, preventing mothers from giving birth prematurely and small babies and babies from getting adequate nutrition from the womb. In this way, it can reduce the incidence of stunting in toddlers (Rizal & van Doorslaer, 2019).

Economic Status

Family economic status has a significant influence on the incidence of stunting as evidenced by the p-value < 0.05 . This is in line with the research of Atin Nurmayasanti & Trias Mahmudiono (2019) that family income has a significant relationship with the incidence of stunting. Short toddlers in Indonesia are more concentrated in low economic status.

The results of this study are in line with the results of (Ngaisyah, 2015) which showed a significant relationship between family income and the incidence of stunting with a p-value of 0.004. Family income is related to the ability of the household to meet the basic, secondary and tertiary needs of life. High family income makes it easier to meet life's needs, on the contrary, low family income has more difficulty in meeting life's needs. Low income will affect the quality and quantity of food consumed by the family.

Low levels of income and weak purchasing power make it possible to overcome eating habits in certain ways which impede effective improvement of nutrition, especially for their children. vitamins and minerals, thereby increasing the risk of malnutrition. These limitations will increase the risk of family members experiencing stunting (Atin Nurmayasanti & Trias Mahmudiono, 2019).

Mother Nutritional Status

The statistical results show that MUAC does not have a significant effect on the incidence of stunting as evidenced by the p-value > 0.05 . The absence of this relationship is due to the nutritional status of pregnant women with MUAC ≥ 23.5 , which is 35% in the case group. This research is supported by the research of (Warda, Elmira, Rizky, Nurbani, & Izzati, 2019) pregnant women who are known from the start to experience a chronic lack of energy can be treated immediately by health workers, so that intervention can be carried out as early as possible. Health workers must monitor the Mid Upper Arm Circumference (MUAC) the first time a mother checks her pregnancy and carry out tighter control of pregnant women who experience CED. So that it can be known early on about abnormalities related to nutritional status and efforts to overcome them (Sri Utami Asmarani, 2020).

Interventions given to pregnant women can improve their nutritional status, including increasing the baby's weight and baby's length. The existence of a supplementary feeding program (PMT) for pregnant women who suffer from chronic energy deficiency in Petirhilir village is one form of intervention given so that the baby in the womb can continue to grow and develop properly. The possibility that causes stunting is the existence of other factors experienced by the baby after birth.

Conclusion

ANC visits, nutritional status and family economic status have a significant influence on the incidence of stunting in toddlers in Petirhilir Village, Working Area of the Baregbeb Health Center, Ciamis Regency.

Ethical Consideration

An ethical test was carried out by the health research ethics committee of STIKes Bakti Tunas Husada (BTH) Tasikmalaya No.004/kepk-bth/II/2020.

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