

Stunting Prevention in the Low Birth Weight Status: A Qualitative Study in Bengkulu City

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ABSTRACT

In 2022, 47 child cases with low birth weight were found in Indonesia. It is one of the risk factors for stunting. The role of mothers is very necessary in preventing children from being stunted. This study aims to analyze what efforts are made by the mothers so that the children with a history of low birth weight do not experience stunting. This type of research is qualitative research. The research was conducted in Bengkulu City, in May - July. Seven mothers with a birth history of Low Birth Weight (LBW) became the research informants. Interview guidelines were used to gather information. Furthermore, the data were analyzed with stages of analysis (reduction, presentation, and conclusion). Mothers realized that stunting is a condition in which children experience impaired growth and development. However, all mothers said the cause is malnutrition and intestinal worms. Therefore, the precautions taken by mothers are only related to intake. The mothers implement early initiation of breastfeeding, exclusive breastfeeding, and continue to give until the age of two years, complete immunization, and concern for the child's diet. Especially for mothers who have children with a history of low birth weight, special assistance should be carried out and given comprehensive education about stunting prevention efforts, not only from dietary factors but also from environmental health.

KEYWORDS: Low Birth Weight, Stunting, Prevention, Knowledge, Qualitative

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INTRODUCTION

Based on data from the Indonesian Nutritional Status Survey (*SSGI*), the prevalence of stunting in Indonesia has decreased in the last year, from 24.4% in 2021 to 21.6% in 2022 (Agustina *et al.*, 2021; Aryastami *et al.*, 2017). Then, over the past three years, the incidence of low birth weight in Indonesia has increased. The incidence of low birth weight in Bengkulu Province is 10.40% of total births (BPS, 2022) and in the city of Bengkulu throughout 2022 stated that 47 births with LBW status were found (Dinas Kesehatan Kota Bengkulu, 2023).

LBW is influenced by several factors, such as maternal body mass index, family income, pregnancy history, hypertension before pregnancy, vaginal bleeding in the first trimester, gestational diabetes, hypertension, placenta previa, placental abruption, premature rupture of membranes, oligohydramnios, type of placenta (Huang *et al.*, 2023; Kuhn-Santos *et al.*, 2019), as well as visits during pregnancy (Halli *et al.*, 2022). In addition, maternal age, child gender, birth order,

birth distance in months, education level, wealth quintile, caste, place of residence, anemic status, number of ANC visits, iron supplementation, and tetanus injection during pregnancy were all associated with low birth weight (Singh *et al.*, 2023).

Babies with low birth weight have a risk of death in the first 28 days of life. For this reason, antenatal care is very necessary so that the survival of children keeps increasing (Jana *et al.*, 2022). Stunting in children will have short-term and long-term impacts, including on child morbidity and mortality (Mukosha *et al.*, 2023) and the child's cognitive abilities (Maulina *et al.*, 2023).

The role of parents is crucial, especially in the growth and development, as well as maturation of toddlers, specifically the role of parents in the selection of food nutrition given to children, exclusive breastfeeding, feeding practices, food diversity for children, and clean-living behavior by parents in the family. Preventive measures on stunting are expected to provide changes in improving nutritional levels in toddlers

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(Wati & Sulistyaningsih, 2023). To perform this parents' role, they must have sufficient knowledge about stunting prevention (Yunitasari *et al.*, 2021).

This study is different from previous studies that only measured the factors that cause stunting and the role of parents in all children, not specifically in children born with low birth weight. This study aims to overview the efforts made by the mothers so that the children who experience low birth weight do not continue to suffer from stunting.

METHOD

A qualitative approach is a research design used to achieve research objectives. The research was conducted in Bengkulu City during May – June 2023. The research informant involved mothers of toddlers selected based on data provided by Public Health Center (*Puskesmas*) health workers, as many as seven mothers who had toddlers with LBW status.

In-depth direct interviews with informants were conducted in the form of one-on-one discussions using some questions to explore information and actions taken to prevent stunting in children. Information obtained in the field was recorded and documented using tape recorders, mobile phone cameras, pens, and notebooks. The researchers followed the interview guidelines, focus group guidelines, and observation guidelines.

At the analysis stage, the information obtained was made in the form of interview transcripts, then reduced by incorporating it into the interview matrix and identifying the theme of each finding. The researcher then interpreted the data and concluded based on this matrix.

RESULT AND DISCUSSION

A total of seven mothers who had children with LBW status were interviewed. Most mothers have a high school education and work as housewives. The characteristics of each informant can be seen in Table 1.

Table 1. Maternal Characteristics

Mother	Age	Education	Occupation
SS	25	Elementary School	Housewife
SP	34	Senior High School	Housewife
MT1	28	Senior High School	Housewife
WL	39	Senior High School	Housewife
SSP	39	Senior High School	Housewife
EM	36	Senior High School	Housewife
MT2	30	College	Private Employer

Table 2. Characteristics

Toddler	Gender	Age	LBW (gr)
AP	Male	3 years 11 months	1400
EMU	Female	3 years 11 months	2200
MH	Male	2 years 10 months	2000
MN	Male	1 years 8 months	2300
HS	Male	2 years 8 months	1500
AZ	Male	2 years	2300
TF	Male	10 months	2400

Knowledge

Mothers must have good knowledge about stunting in order to prevent this case so that stunting is not experienced. Based on the results of interviews, mothers have learned that stunting is a disorder of growth and development of children caused by insufficient food intake, lack of vitamin consumption, and genetic factors. Some mothers still use a diet of four healthy five perfect. As the following interview excerpts:

"Stunting is the growth and development of children not according to age, the cause is insufficient food intake and genes from parents, prevention efforts to provide nutritious food 4 healthy 5 perfect" (SS, SP, WL).

"The development and growth of children who are not age-appropriate caused by malnutrition, namely vegetables, fruits, 4, healthy 5 perfect, and prevention efforts are nutritious foods and maintain health" (SSP).

"Children with short bodies and lack of growth and development is caused by less nutritious food, lack of vitamins and worms" (EM).

"Less development, less TB, causes of lack of vitamins" (MT1).

"The development and growth of children who are not age-appropriate or children can be said to be short caused by malnutrition and genetics" (MT2).

Prevention

Mothers make various efforts so that children do not experience stunting by conducting Early Breastfeeding Initiation (IMD), providing breastfeeding for up to two years, immunization, monitoring growth and development, as well as concerning children's diet.

Early Initiation of Breastfeeding

According to the health conditions of mothers and babies, four out of seven mothers initiate early breastfeeding 10-15 minutes and half an hour after birth, as the following interview excerpts:

"Yes, about 10-15 minutes on the mother's chest"(SP, MT1)

"Yes, half an hour after birth" (EM, MT2)

In addition, there were three mothers who did not initiate early breastfeeding because the milk had not yet come out, and the

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babies were separated from the mother for one week in the incubator.

"Given after three days postpartum because milk is lacking and does not come out" (SS, WL)

Duration of Breastfeeding

Another effort that mothers make so that children do not experience stunting is to provide exclusive breastfeeding to children and continue to provide breast milk until the child is 1 year, 5 months/1, year 7 months/2 years. Such the following interview excerpt:

"Breastfeed because exclusive breastfeeding is better than formula" (SS)

"Breastfeed for 6 months exclusively and age 1 year 5 months stop" (SP, WL)

"For 2 years" (WL)

"Until now 21 months of age" (EM)

"For 6 months exclusively and age 1 year 7 months stop" (MT1, MT2)

However, there is one mother who only gives breast milk for three weeks because the milk does not come out, as this interview quote, "No, only three weeks because the milk does not come out." (CNS)

Immunization

Six out of seven mothers provide complete immunization for their children. One mother did not provide complete immunization for the reason of the hassle of carrying her child. As in the following interview excerpt:

"Complete immunization all according to the child's *UISA*" (SS, SP, WL, MT1, MT2, EM)

"Yes, but rarely because of hassle" (CNS)

Monitoring the Growth and Development of Infants and Toddlers

Mothers monitor children's growth and development regularly at Integrated Healthcare Center (*Posyandu*). Monitoring is carried out by health workers every month; if the child's weight does not increase, the health officer will give advice on foods that should be consumed and avoided. Such the following interview excerpt:

"Carried out by Public Health Center (*Puskesmas*) officers at Integrated Healthcare Center (*Posyandu*)" (SS, EM, MT2)

"Routine according to the age of the child, if the child does not go up, then there is advice from the Public Health Center (*Puskesmas*) officer" (SP)

"If it does not increase, it is recommended to consume less ice and snacks MSG" (WL)

"Every month, if the toddler weight does not increase, then it is given the advice to consume a variety" (MT1)

However, some mothers state that they do not routinely monitor because they rarely participate in counseling.

"Not because they rarely participate in counseling and not routinely because of hassle" (SSP),

Diet

Complementary Food (*MPASI*)

After the child gets exclusive breastfeeding, the mother gives complementary foods with filtered texture for the beginning, then at the age of 9 months with soft food, and at the age of 1 year with ordinary rice. Children are fed at least 3 times a day, as in the following interview excerpts:

"Food in filtered form for three times a day" (SS)

"Age 6 months filter porridge, 9 months soft, 1-year ordinary rice given three to six times a day" (MT1, MT2, SSP)

"Given the age of 6 months filter food, 9 months thick, and 10 months already regular food" (SP)

"6 months old soft rice food given one to four times/day" (WL)

"I love Biscuits" (EM)

Frequency of Eating Vegetables and Fish

Children consume vegetables two or three times a day, and fish one or two times a week, as quoted in the following interview:

"Consume vegetables three times a day" (SS, MT2, EM)

"Consume vegetables twice a day" (MT1, SP, WL, SSP)

Fish-sourced food consumed three times a week (SS, SSP, SP, MT2),

"Biweekly" (WL, MT)

"Once a week" (EM, SS)

The current health condition of children under five does not result from conditions during pregnancy and childbirth. Children with a history of low birth weight are at risk of malnutrition in infancy, especially if the family has a low income (Chowdhury *et al.*, 2023). The mother's diet during pregnancy is not good, such as consuming less sea-sourced foods also impacts the baby's weight (Wei *et al.*, 2023).

Six of the seven mothers who became informants were educated in high school and elementary school. Maternal education is an important factor in providing parenting to children; the higher the mother's education, the more mothers will learn and understand the factors that cause stunting. Previous research has found that maternal education is the dominant factor associated with stunting (Rita *et al.*, 2022).

In order to obtain information on children's health, especially those related to monitoring children's growth and development, mothers' activeness in Integrated Healthcare Center (*Posyandu*) activities is very necessary. Health workers will inform mothers on how to maintain the toddler's health and monitor the child's growth and development (Daluas *et al.*, 2019). Health counseling followed by mothers affects the average birth, child weight, and nutritional status of children. The more mothers get information, the more they know so that they can apply parenting knowledge based on their understanding (Prasetyo *et al.*, 2023).

The results found that mothers exclusively breastfed toddlers and continued breastfeeding until the age of two years. Exclusive breastfeeding affects the nutritional status of children. Children who do not get exclusive breastfeeding are at risk of

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5.93 times experiencing nutritional problems. (Samosir et al., 2023; Umar & Puspita, 2021). Maintaining breastfeeding itself until the baby reaches six months of age will prevent stunting (Kasmita et al., 2023). Another study proved that breast milk without fortification of formula powder has no effect (Gupta et al., 2020). Besides breastfeeding, mothers also pay attention to eating patterns, both the type and frequency. There is a relationship between the feeding frequency and toddlers' nutritional status (Tampubolon, 2021).

All children receive complete basic immunization as it is important for their health to resist disease-causing agents. Complete immunization is a predictor of a decrease in stunting prevalence (Agustina et al., 2021; Eryando et al., 2022). Maternal education is a basic factor related to the completeness of child immunization (Banerjee et al., 2021).

The results of the interview found that children often consume vegetables and very rarely consume fish. Previous studies also found from several variations of food consumed by children, seafood-sourced foods are the least consumed foods. The most preferred and often consumed food of children is cereals (Modjadji et al., 2020). Food intake and diet of children are factors causing malnutrition in children, and food diversity is necessary to fulfill nutritional needs (Haq et al., 2020).

This study only focused on mothers with the condition of children born with low birth weight through a qualitative approach. The child's age varies, so the older the child, will be difficult for the mother to remember what the mother has given or done. The ability of researchers to extract information from informants also affects the information obtained.

CONCLUSION

Mothers realize that stunting is a disorder of child growth and development caused by insufficient food intake, genetics, and worms. Mom still follows a diet of four healthy five perfect. Several efforts are made by mothers so that children do not experience stunting, namely doing Early Initiation of Breastfeeding, providing exclusive breastfeeding and continuing to breastfeed for up to two years, immunization, monitoring children's growth and development, and concerning diet. Health workers should provide more in-depth education, especially to mothers with LBW child status, such as foods that need to be consumed and avoided, and environmental health conditions that affect children's health. Thus, mothers can make efforts so that children do not experience stunting.

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