



Characteristics And Knowledge of Mothers about Stunting Who Have Toddlers with Stunting

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ABSTRACT

Background: The prevalence of stunted toddlers is around 24.4%. Meanwhile, in 2022, the results of the Indonesian Nutrition Status Survey (SSGI) prevalence of toddlers with stunting will decrease to 21.6%, a decline of 2.8% from 2021

Purpose: This study aims to assess the association between the characteristics and knowledge about stunting of mothers who have toddlers and the incidence of stunting

Methods: The research design used is quantitative, with an analytical survey design using a selective cross-sectional approach. The sample comprises 98 respondents' mothers with children under five and their toddlers. The data collection instrument used was a questionnaire. Statistical analysis used Chi-square.

Results: There is an association between the mother's age, education, family income, and knowledge with the incidence of stunting in children under five years.

Conclusion: A mother's characteristics and knowledge are closely related to the incidence of stunting. It is essential to provide education for mothers to prevent stunting in children.

Keywords: *Stunting, characteristic of mother, knowledge*

BACKGROUND

Based on data from Indonesia's Health Profile 2021, the prevalence of stunted toddlers is around 24.4%. Meanwhile, in 2021, the Indonesian Nutrition Status Survey (SSGI) results show that the prevalence of toddlers with stunting will decrease to 21.6%, a decline of 2.8% from 2021 (Laksono et al., 2021). In DKI Jakarta in 2022, the prevalence of toddlers with stunting will be around 14.8 %, and for the Central Jakarta area, namely 14% (Ramdhani et al., 2020).

Toddlers are considered to need adequate nutritional intake in quantity and quality. Children usually have high levels of physical activity at an early age. After all, they are still in the learning phase. Health development in Indonesia from 2015 to 2020 focuses on three political components: reducing maternal and infant mortality rates, reducing stunting, and preventing infectious and non-communicable diseases. Efforts to improve the nutritional status of the community, including reducing the incidence of stunting in children under five, are recorded as one of the national development priorities included in the main objective of the mid-term development plan (Widari et al., 2021).

Efforts to prevent stunting cannot be separated from parents' knowledge about stunting. Knowledge results from knowing one's cells through human senses such as seeing, hearing, tasting, touching, and smelling. Increasing the knowledge of mothers who have toddlers about stunting can also be affected by education, behavior, and beliefs (Haines et al., 2018). One research stated that the mother's level of knowledge is one of the factors that increases the risk of stunting. In addition, children who experience stunting tend to occur in mothers with less knowledge (Titimeidara & Hadikurniawati, 2021).

In previous studies, there was a significant relationship between the level of energy intake, the average duration of illness, birth weight, mother's educational level, mother's employment, number of family members, and family income level with stunting. The mother's educational level factor has a very close relationship (Hall et al., 2018). The results of other studies suggest that the lack of knowledge among mothers about stunting can be influenced by several factors, namely age and education (Rizcewaty et al., 2022). Therefore, it is very necessary to provide information about stunting to prospective mothers, mothers of toddlers, and health service providers so that they can know the characteristics of stunting so that intelligence can be given optimally and cases of stunting can be prevented as early as possible (Saleh et al., 2021).

Stunting prevention is also focused on the first 1,000 days of life for pregnant women, nursing mothers, and children 0-23 months. The 1,000 First Days of Life baseline is a baseline that determines the quality of life. The survey results on nutritional status in DKI Jakarta in 2022 show the prevalence of stunting under five, around 14.8%, and for the Central Jakarta area, it is around 14% (Kemenkes RI, 2022). It is essential to carry out more in-depth research on the Characteristic Relationship and Mother's Knowledge of Stunting Incidents in Central Jakarta as various study materials to increase mothers' knowledge to prevent stunting from the pre-colonial period to the first 1000 days of life.

OBJECTIVE

This study aims to assess the association between the characteristics and knowledge of mothers about stunting who have toddlers and the incidence of stunting

METHODS

The research design used is quantitative research with an analytical survey design using a selective cross-sectional approach. The sample for this research is mothers who have children under five and their toddlers in the working area of Central Jakarta (age 6-59 months). The minimum sample in this study used sample calculations with the Lemeshow formula and obtained samples of as many as 98 respondents. The sampling technique is non-probability sampling taking into account the inclusion criteria (toddlers with mothers who live together, come to health care center, mothers and toddlers whose children are aged $\geq 6 - 59$ months, mothers and toddlers whose parents have become volunteers, and have signed informed consent during data collection), and exclusion criteria (toddlers who have infectious diseases and genetic disorders). This study looked at the relationship between maternal characteristics including age (at risk, not noisy), parity (primipara, multipara), mother's education (elementary-secondary, high), occupation (working, not working), income (low, high) and knowledge (good, not good) with the incidence of stunting.

The data collection instruments used were (1) a questionnaire containing the mother's characteristics including the mother's initials, mother's age, mother's education, mother's occupation, number of children, and family income, (2) the mother's knowledge questionnaire the form of a checklist form totaling 20 points. Then, to determine the results of the mother's knowledge measurement using the Guttman scale, a score of 0 is given for an incorrect answer and a score of 5 for a correct answer. Knowledge is categorized as good if $> \text{mean}$ (50.26). This questionnaire was developed by researchers and its validity has been measured using Pearson correlation analysis and proven to be valid ($p < 0.05$), and its reliability has been measured using Cronbach alpha analysis and proven to be reliable (Cronbach alpha 0.925). In filling out the questionnaire, the researcher will accompany the surveyor to reduce errors when filling out the questionnaire. Statistical analysis used Chi-square to measure the association between maternal characteristics and knowledge with the incidence of stunting.

RESULTS

Respondent characteristics

Table 1. Respondent Characteristics Based on Age, Parity, Education, Occupation, Income and Knowledge

Characteristics	Number	
	Frequency (n)	Percentage (%)
Age		
20 – 35	58	59.2
< 20 and ≥ 35	40	40.8
Parity		
Primigravida	19	19.4
Multigravida	79	80.6
Educational _		
Basic- Middle Education	79	80.6
High education	19	19.4
Occupation _		
Worked	46	46.9

Not worked	52	53.1
Income		
Low	64	65.3
Normal-high	34	34.7
Knowledge		
Fair	26	26.5
Good	72	73.5

Table 1 shows that the characteristics of the respondents are based on age, that is, the majority of the age are non-risk age, namely 58 cells (59.2%). More respondents with multigravida parity were 79 respondents (80.6%) and respondents with primigravida parity were 19 respondents (19.4%). Most of the respondents with elementary-secondary education were 79 respondents (80.6%) and a small proportion of respondents with higher education were 19 (19.4%). The respondents who did not work were 52 respondents (53.1%) and the respondents who did not work were 46 respondents (46.9%). Most of the respondents have low income, as many as 64 respondents (65.3%). More respondents with good knowledge 72 respondents (73.5%) and respondents with less education 26 respondents (26.5%).

Incidence of stunting

Tabel 2. Toddler condition of stunting

Stunting	Amount	
	Frequency (f)	Percentage (%)
Yes	14	14.3
No	84	85.7
Jumlah	98	100

Table 2

shows that more children under five do not experience stunting, namely 84 respondents (85.7%) and 14 adults with stunting (14.3%).

Table 3. Association between age, parity, education, occupation, income, and knowledge of mothers about stunting with the incidence of stunting

Variable	Toddler						P-value
	Stunting		Normal		Total		
	Number (n)	Percentage (%)	Number (n)	Percentage (%)		Percentage (%)	
Age (years old)							
1. < 20 and ≥ 35	12	25.5	35	74.6	47	100	0.002
2. 20 - 35	2	3.9	49	96.1	51	100	
Parity							
1. Primiparity	1	5.2	18	94.7	19	100	0.211
2. Multiparity	13		66		79	100	
Education							
1. Basic-Middle	13	23.6	42	76.4	55	100	0.003

2. High	1	2.3	42	97.7	43	100	
Occupation							
1. Worked	8	17.4	38	82.6	46	100	0.409
2. Not worked	6	11.6	46	88.5	52	100	
Income							
1. Low	14	21.9	50	78.1	64	100	0.003
2. Normal-High	0	0.0	34	100.0	34	100	
Knowledge							
1. Fair	9	34.6	17	65.4	26	100	0.001
2. Good	5	6.9	67	93.1	72	100	

Table 3 shows that of the 47 mothers with high-risk children, 12 had stunting toddlers, and among the 51 respondents/mothers with no risk factors, 49 respondents had babies who did not have stunting. Based on the results of the bivariate test using the chi-square test, there was an association between maternal age, education, family income, and mother's knowledge with the incidence of stunting (p -value < 0.05).

Based on parity characteristics, out of 19 respondents/mothers with primiparous parity, 18 respondents tend to have toddlers not experiencing stunting. Among 79 respondents/mothers with multipara parity, as many as 13 mothers have stunted toddlers. This research showed that out of 55 respondents/mothers with low education, approximately 13 mothers had stunted toddlers, and among the 43 respondents/mothers with higher education, 42 respondents did not have stunted toddlers. Based on the characteristics of working mothers, out of 46 respondents/working mothers, there was a tendency to have toddlers who did not experience stunting as many as 38 respondents. Among the 52 respondents/mothers who did not work, only six mothers had stunted toddlers. Based on the characteristics of 64 respondents/mothers with low family income, there were 50 respondents/mothers with high family income, all of them had toddlers who did not experience stunting, and as many as 34 respondents. Based on the mother's knowledge of 26 respondents with poor knowledge, most had toddlers who did not experience stunting, as many as 17. Among the 72 respondents with good knowledge, most had toddlers who did not experience stunting, with as many as 67 respondents.

DISCUSSION

The study's results showed an association between maternal age and the incidence of stunting. Age will affect the ability and self-preparedness of the mother. Mother's age determines patterns of care and selection of suitable food for children due to the increased experience and maturity of mothers in patterns of care and selection of child nutrition (Laksono et al., 2022)

One research, in line with our study, stated that there was a significant association between mothers with a younger age and the risk of stunting (Tahangnacca et al., 2020). The maternal age category in this study was divided into risky and non-risk. The theory reported (Chen et al., 2020) that the reproductive age of women is 20-35 years. At <20 years, the reproductive organs are not functioning correctly, and >35 years of reproductive decline occurs (Quamme & Iversen, 2022). Another research found that those over 35 years of age during pregnancy have a 2.74 times greater risk of giving birth to stunted children compared to mothers who give birth at ages 25-35. Pregnancy at a gestational age of 20-35 is a safe period because the maturity of the

reproductive and mental organs to undergo pregnancy and delivery is ready (Utami et al., 2019).

The results of the study showed that there was no relationship between maternal parity and the incidence of stunting. Several factors that are thought to be the cause of stunting are the history of the mother's pregnancies, which include the mother's body posture (slenderness), the distance between pregnancies that are too close, the number of births that are too many, the age of the mother during pregnancy is too old, the age of the mother during pregnancy is too young (under 20 years) risky of gives birth to babies with low birth weight, as well as inadequate nutritional intake during pregnancy (Januarti & Hidayathillah, 2020). Parity is the number of children who live or the number of pregnancies that produce fetuses that can live outside the uterus. Mothers who give birth too frequently do not have the opportunity to improve their bodies because mothers need sufficient energy to restore the body's health after giving birth to their children (Moazzeni et al., 2021). Previous studies have stated that the characteristics of parity, mothers with less knowledge are the most mothers with 2-3 children (65.2%). The results of the Chi-Square test on parity characteristics showed no significant relationship with the mother's knowledge ($p > 0.05$). One research stated that there was an association between parity and the incidence of stunting, so in this study, it was stated that parity was a factor that could affect the incidence of stunting (Sari & Sartika, 2021).

Based on the results of the bivariate analysis, it shows that there is an association between a mother's education and the incidence of stunting. Mother's education is a very important factor (Laksono et al., 2021). The high or low level of education of mothers is related to the level of knowledge about health care, hygiene, pregnancy, and postpartum examinations as well as awareness of the health and nutrition of children and their families (Hall et al., 2018). Education also influences other socioeconomic factors such as income, work, living habits, food, housing, and place to live. Education also determines whether or not it is easy for a person to absorb and understand the knowledge of nutrition that releases knowledge (Ramdhani et al., 2020). Mothers with good education and knowledge can prevent stunting in their children by preparing themselves before and during pregnancy and providing good child care (Hall et al., 2018). The association between a mother's education and stunting is stronger as seen in the research of Tri Mulyaningsih (2021) where mothers with lower education (not in high school/elementary school) are more likely to have stunted children (Mulyaningsih et al., 2021). The same results were also obtained in a study conducted by Azizah (2022) where the education of low caregivers was 2 times more at risk of experiencing stunting (Azizah et al., 2022). People who care for children play an essential role in feeding patterns to prevent stunting (Azizah et al., 2022).

Based on the results of the bivariate analysis, it shows that there is no association between the mother's occupation and the incidence of stunting. Working mothers will lose time to pay attention to food intake for their toddlers which will affect their nutritional status. Working mothers have a relationship with stunting, with the assumption that working mothers do not have time to care for children's nutritional needs (Laksono et al., 2022) As a wife and mother to her children, a mother has a role to take care of the household, as a caretaker and educator for her children, a protector, and as one of the groups from her social role as well as a member of society from her environment (Laksono et al., 2022).

Based on the results of the bivariate analysis, it shows that there is an association between family income and the incidence of stunting. If the family's income is mediocre while the number of children is large, the distribution and adequacy of food cannot be guaranteed. Infectious disease is also one of the factors causing stunting, where infection causes toddlers to lose food through vomiting and diarrhea (Soekatri et al., 2020). Families with incomes below the minimum wage have a 6,625 times greater chance of having children with stunting than those above the minimum wage (Utami et al., 2019).

The study's results showed an association between the mother's knowledge and the incidence of stunting. Knowledge is the result of knowing, which happens every time a person senses a particular object. Sensing occurs through the five human senses: sight, hearing, smell, taste, and touch (Ramdhani et al., 2020). The level of knowledge can be influenced by several factors, namely age, intelligence, environment, social culture, education, information, and experience (Hall et al., 2018). Knowledge is closely related to education, where it can be assumed that someone with higher education will also have a more comprehensive knowledge. The level of mothers' knowledge about stunting is the key to managing the household; this will affect the mother's attitude in selecting foodstuffs that will be consumed by the family later. Mothers with good knowledge will understand the importance of good nutritional status for healthy health and well-being (Mulyaningsih et al., 2021). The level of education also determines whether or not it is easy for a person to absorb and understand nutrition knowledge (Hall et al., 2018). Based on the results of this research, there is an association between maternal knowledge and the incidence of stunting and the role of midwives in conducting early screening for growth problems in toddlers. So, with early screening, it can be known early, and treatment can be done as early as possible. Collaboration between midwives and nutritionists can be carried out to treat toddlers who have experienced stunting so they can get further treatment.

CONCLUSION

There is an association between a mother's age, education, family income, knowledge, and stunting incidence. Meanwhile, there was no association between parity, the mother's occupation, and the incidence of stunting in their children. It is hoped that families, including parents of toddlers, can use this research to increase knowledge, attitudes, and behavior in preventing stunting in toddlers.

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