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Parenting Patterns as a Determinant of Stunting in Toddlers Under Five Years in Indonesia

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Abstract
Stunting is identified as one of the unresolved nutritional problems in several countries in the world, including Indonesia. Stunting is identified as impacting the growth and development of children's motor, psychomotor, and mental conditions, and intelligence. One of the efforts to reduce the risk of stunting is to identify and analyze the pattern of parenting providedby mothers to toddlers. Parenting can be defined as parentingbehavior for toddlers related to efforts to provide food and fulfill nutritional needs, provide access to health facilities, and care in other aspects based on knowledge, attitudes, and mother's behavior. Aims to analyze parenting as a determinant of stunting in Indonesia through the article review method. The type of the article is article review based on ten main articles that have been selected based on inclusion and exclusion criteria. Parenting has a relationship and contribution as a determinants of stunting in toddlers in Indonesia. Parenting patterns can be broadly classified into three types: parenting patterns according to the provision of food and nutrients, parenting patterns according to health aspects, and parenting patterns according to mother and family background.

Keywords : Parenting Patterns; Stunting; Toddlers;

How to Cite

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Introduction

Nutritional problems are one of the main problems in the health sector which require intervention and focus on solving them (Rosha et al. 2016). Nutritional problems in Indonesia focus on micro and macro nutrition problems, which is stunting. Stunting is identified as one of the unresolved nutritional problems in several countries in the world, including Indonesia. Stunting is defined as a condition of failure to thrivein children so that children tend to have a height below their age standard (Rahayu and Khairiyati 2014). Stunting is considered capable of having implications for the social and economic conditions of the community (Djauhari 2017).

WHO (Organization 2014) through Global Nutrition Targets data, estimates that in 2025 globally, there will be 171 to 314 million toddlers who are stunted. Data on the prevalence of stunting in Indonesia compiled from the 2018 Basic Health Research (Riskesdas) identified a decrease in the prevalence of toddlers and toddlers who experienced stunting. This is indicated by a decrease in the prevalence of toddlers with stunting from 37.2% in the 2013 Riskesdas results to 30.8% in the 2018 Riskesdas results, while there is a decrease in the prevalence of toddlers with stunting from 32.8% to 29.9% in the Riskesdas.

This can occur due to the manifestation of low access to nutrient-rich foods in a relatively long period. Stunting is identified as impacting the growth and development of children's motor, psychomotor, and mental conditions, and intelligence (Yadika, Berawi, and Nasution 2019). The results of previous studies showed that stunted toddlers tend to be at risk for infectious diseases due to low nutritional status, which impacts low body immunity (Dewi and Adhi 2016). Research shows that as adults, children who experience stunting tend to be at risk for developing non-communicable diseases such as obesity, heart disease, hypertension, diabetes, and others (Setiawan, Machmud, and Masrul 2018).

Based on the above, it can be identified that stunting can affect the quality of the human resources produced. The decline in the quality of human resources is based on the impact of stunting on cognitive function, which results in a decrease in the level of intelligence in adulthood which is also supported by studies that state a decrease in productivity in adulthood in adults are stunted as toddlers. Both are considered to have implications for a person's life, where cognitive conditions and productivity are essential components to run life optimally.

One of the efforts to reduce the risk of stunting is to identify and analyze the pattern of parenting provided by mothers to toddlers. Parenting can be defined as parenting behavior for toddlers related to efforts to provide food and fulfill nutritional needs, provide access to health facilities, and care in other aspects based on knowledge, attitudes, and mother's behavior. In their research, Ni'mah & Muniroh., (Ni﷽mah and Muniroh 2015) known tobe closely related to parenting. Based on the background and description of the problems presented related to stunting in toddlers, this article aims to analyze parenting as a determinant of stunting in Indonesia through the article review method.

Method

The type of the article is article review based on ten main articles that have been selected based on inclusion and exclusion criteria, published during 2016 to 2021 located in Indonesia, articles of original research type by including parenting and stunting as research variables, using the subject of mothers with stunting toddlers, and peer-reviewed articles. Exclusion criteria are articles that discuss other determinants of stunting. The selection of articles was obtained through the Google Scholar and SINTA Journal databases. The selected articles will be analyzed descriptively by identifying the author and year of publication of the article, research location, study design, research sample, and the main results that are relevant to answer the objectives of the article.

Result and Discuison

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A review of all articles that have passed the selection will be presented based on the table below.

Table 1. Selected Articles

Author & Year	Location	Study Design	Participants	Research Result
Rahmad & Miko (2016)	Banda Aceh, Aceh	Case control	8 motherswith stunting toddlers and 48 mothers with non-stunted toddlers	Parenting patterns were classified according to non-exclusive breastfeeding (p=0.002; OR=4.2), inadequate complementary feeding (p=0.007; OR=3.4), incomplete immunization (p=0.040; OR=3 .5), and low family income (p=0.026; OR=3.1) were all determinants of stunting.
Yudianti & Saeni (2016)	Polewali Mandar	Case control	51 mothers with stunting toddlers and 51 mothers with non-stunted toddlers	There is a correlation between feeding behavior (p=0.02; OR=2.4) and personal hygiene (p=0.016; OR=3.42) as an indicator of parenting with stunting.

Widyaningsih et al., (2018)	Klaten, Jawa Tengah	Cross-sectional	100 mothers with stunting toddlers	Parenting patterns were classified according to eating patterns (p=0.015) and food diversity (p=0.024) as determinants of stunting.
Maywita (2018)	Padang, Sumatera Barat	Case control	29 mothers with stunting toddlers and 29 mothers with non-	Parenting patterns according to nutrition are known to contribute to the incidence of stunting in toddlers (p = 0.0013,

			stunted toddlers	OR = 1.37).
Mugianti et al., (2018)	Blitar, Jawa Timur	Cross-sectional	31 mothers with stunting toddlers	Parenting patterns with indicators of incomplete immunization and not exclusive breastfeeding are known as risk factors for stunting in toddlers.
Azriful et al., (2018)	Majene	Cross-sectional	183 mothers with stunting toddlers	Parenting patterns according to exclusive breastfeeding contribute to the incidence of stunting in toddlers (p=0.000, OR=1.56).
Ramadhani et al., (2019)	Keerom, Papua	Case control	40 mothers with stunting toddlers and 40 mothers with non-stunted toddlers in each tribe	Parenting patterns are known to contribute to the incidence of stunting in toddlers (p=0.000, OR=5.57) in both Papuan and non-Papuan ethnic groups.
Bella et al., (2020)	Palembang, Sumatera Selatan	Cross-sectional	100 mothers with stunting toddlers	There is a correlation between feeding (p=0.000), parenting (p=0.001), hygiene (p=0.021), and access to health facilities (p=0.000) as indicators of parenting and stunting.
Mentari (2020)	Batang, Jawa Tengah	Cross-sectional	235 mothers with stunting toddlers	The parenting pattern of stunting toddlers is known to correlate with knowledge (p=0.034, OR=1.56), attitude (p=0.004, OR=1.54), age (p=0.029, OR=1.4), education level (p =0.016, OR=1.53), occupation (p=0.046, OR=1.52), family income (p=0.026, OR=1.44), and family support (p=0.024, OR=1.51).
Adha et al., (2021)	Jeneponto	Cross-sectional	82 mothers with stunting toddlers	Parenting patterns are known to contribute to the incidence of stunting in toddlers (p=0.005).

Based on the identification results in the reviewed articles written in table 1 above, it is known that from a total of 10 selected articles, a total of two articles were published in 2016, four articles were published in 2018, one article was published in 2019 and 2021, and two The article was published in 2020. The research location is in Indonesia, spread across various regions ranging from case-control and cross-sectional study designs. The samples in this study were mothers with stunting or non-stunting toddlers, which ranged from 29 to 235 samples.

Discussion

Based on the results of the research presented in the table, it can be seen that parenting patterns of mothers or families are known to contribute to the incidence of stunting in toddlers. Toddlers are categorized in the age range of 0 to 59 months and are known at risk of stunting, which continues to increase along with poor parenting. Parenting patterns, are known based on several indicators or aspects, including non-exclusive breastfeeding, nutritionally inadequate complementary feeding, toddlers who do not receive complete immunizations, poor personal hygiene care, low nutritional diversity obtained in children. Side dishes or food sources for toddlers, parenting patterns, and family support. Parenting patterns are also known to occur because of the primary caregiver background,

Following the main findings of the study, which stated that parenting and stunting had a correlation and risk in increasing the incidence of cases, the researchers then classified parenting patterns based on the type and causal factors, namely: parenting patterns according to feeding and nutrition (including exclusive breastfeeding, complementary feeding, food diversity and provision of nutrient-rich foods); parenting patterns according to health aspects (covering access to health care facilities, providing complete immunizations for toddlers, and thoroughness in hygiene, especially those related to personal hygiene); and parenting patterns according to mother and family background (knowledge, behavior, attitudes, age, education, occupation, economic status and family support given to toddlers). Parenting, in this case, plays a vital role in determining the nutritional status of toddlers, including the supporting aspects that play a role in determining the degree of nutrition and the risk obtained for experiencing stunting. Parenting patterns are known not to be caused by the form of behavior or attitudes of mothers that are applied to toddlers, but are motivated by the background of the caring family, namely the mother who is also the reason for the mother as a subject in the study.

Parenting patterns according to the provision of food and nutrients are known to play a vital role, given the definition of stunting regarding the condition of low nutritional status in toddlers, which is characterized by low height and does not match the indicators for achieving height for age. Since the neonate period, food and nutrients received by toddlers can be identified by the status of exclusive breastfeeding until the baby is six months old. This can happen because exclusive breastfeeding for infants can improve immune status and be a source of staple food until the age of six months. The

risk of babies experiencing degradation of health conditions and intellectual development can be minimized. This phenomenon is following research (Mugianti et al. 2018) with the main finding that exclusive breastfeeding is known as a risk factor in the incidence of stunting in toddlers, while (Rahmad and Miko 2016) stated that non-exclusive breastfeeding increases the risk of toddlers experiencing stunting (OR = 4.2), research by (Azriful et al. 2018) also explains that toddlers are at 1.56 times greater risk of experiencing stunting if they do not receive exclusive breastfeeding. This shows that the better the parenting behavior in exclusive breastfeeding, the lower the baby's chance of experiencing stunting.

The parenting pattern in providing food for toddlers that contributes to the increased risk of stunting is inadequate complementary feeding (MP-ASI), both in terms of the amount of nutrition, the variety of food sources, and the quality of the nutrients present. Inadequate complementary feeding is known to increase the risk of stunting up to 3.4 times greater in toddlers (Rahmad and Miko 2016). Meanwhile, according to toddlers' age and nutritional needs, inadequate nutrition is known to have an OR of 1.37 in Maywita's study. (Maywita 2018). The study also explained by (Widyaningsih, Kusnandar, and Anantanyu 2018) that food diversity (p = 0.024) is one of the determinants of stunting.

Parenting patterns according to health aspects in the incidence of stunting have a role in measuring the health status of toddlers, including early detection of diseases experienced by toddlers and prevention of infections that can be prevented by immunization through the provision of complete immunizations for toddlers. Research by (Rahmad and Miko 2016) stated that incomplete immunization for toddlers has a risk of increasing the incidence of stunting by 3.5 times. Family support and the role of both parents are essential in the success of accessing health care facilities for toddlers. (Bella, Fajar, and Misnaniarti 2020) explained that low access to health facilities could make toddlers more likely to experience stunting. This condition must be balanced with care in proper personal hygiene and hygiene that meets the requirements for toddlers, parents, or the toddler's environment. This follows the findings (Yudianti and Saeni 2017), who explainedthat poor personal hygiene conditions for toddlers were at risk of increasing the OR by 3.42 times in the incidence of stunting in toddlers.

According to mother and family background, Parenting patterns can be explained according to the mother's characteristics as the primary caregiver for toddlers,which can be changed and cannot be changed to reduce the degree and risk of stunting. Research in Batang, Central Java by Mentari (2020) explains that knowledge (OR=1.56), attitude (OR=1.54), age (OR=1.4), an education level (p=0.016, OR=1.53), occupation (OR=1.52), family income (OR=1.44), and family support (OR=1.51) are the determinants of parenting patterns according to mother and family background that can increase the risk of stunting. It can happen because mothers with low levels of education have a greater chance of experiencing insufficient knowledge and attitudes, including an understanding of stunting and efforts which can prevent related to toddlers's health and nutritional status. Meanwhile, low family income increases the opportunity for limited

access to food that is rich in nutrients and meets nutritionalneeds adequately.

Researchers can write down the implications according to the description above, which explains that: Parenting patterns according to the provision of food and nutrients, parenting patterns according to health aspects, and parenting patterns according to mother and family background also contribute to the risk for toddlers experiencing stunting. This research is expected to be a recommendation for policymaking and interventions in efforts to reduce the prevalence and incidence of stunting in toddlers in Indonesia.

Conclusion

The conclusion that can be built in this study is that parenting has a relationship and contribution to the incidence of stunting in toddlers. Parenting patterns can be broadly classified into three types: parenting patterns according to the provision of food and nutrients, parenting patterns according to health aspects, and parenting patterns according to mother and family background

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