

ORIGINAL ARTICLE

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## RELATIONSHIP BETWEEN PARENTING STYLE AND PERCEIVED INFORMATION SOURCES WITH STUNTING AMONG CHILDREN

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### Abstract

Stunting is the condition of chronic malnutrition during the most critical growth period at the beginning of life, which is characterized by height according to age <-2 elementary school. The behavior of mothers taking care of children can be influenced by technology, which is characteristic of millennial generations. The study aimed to describe the mothers' behavior who have children with stunting experience. Method: this study is a descriptive study with a sample of 174 respondents with a cluster random sampling technique in millennial generation mothers in the Martapura Kota Subdistrict, Banjar Regency, South Kalimantan. Results: The results of the study showed that a mother's parenting style in stunting children was mostly negative, and most of the information access of mothers was productive. Conclusion: Negative parenting increases the risk of stunting in children, whereas access to productive information reduces the risk of stunting in children. Nurses are expected to provide health promotion about the understanding, causes, and effects of stunting on children so that they can change parenting to be positive and access information about productive millennial mothers.

**Keywords:** behavior millennial mother, stunting, child

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### Introduction

Stunting is one of the most severe health problems today, affecting 156 million children worldwide (1). The Indonesian government has made various efforts to overcome the problem of stunting. However, the incidence of stunting is still high.

The prevalence of stunting among children is still concerning; around 90% of the child has been living with stunting in Africa and Asia (1). The shortage prevalence in Indonesia is based on the 2013 Basic Health Research Results of 37.2% (2). The Health Research and Development Agency (2013) (3) stated that in some provinces, were the severity of the stunting category in Indonesia and South Kalimantan documented around 37.2% of children experiencing growth failure (2). While, based on nutritional status records from Banjar District Health Office, Martapura Kota Subdistrict showed that 30.4% of children were stunting.

The stunting condition starts from pregnancy to the first two years after the child is born (4), due to family and household factors (5), inadequate maternal care

practices including lack of maternal knowledge about health and nutrition (6), and maternal access to information (7).

Children under five are currently born to mothers of generation Y. Y generation or millennial generations are demographic groups born between 1980-2000 (8). This population is carried along with the development of the internet and gadgets (9). A mother's behavior in caring for a child can now be influenced by technology, which is a characteristic of millennial generations (10). Millennial generation behavior based on research divides into five categories that are judged by one's exposure to technology, especially the internet (11). Some of the mothers spent time on the internet, assessing between 4-6 hours per day. It was indicated that that mother has heavy users on the web (9). Also, the lack of a healthy lifestyle was higher with inadequate information (12).

Mother has a vital role in the first 1,000 days of a child's life. Adequate parenting has a positive effect on a child's basic needs and intention on physical and psychological contact (13). Even though parenting style and perceived information sources are essential, a limited study conducted in this area in Indonesia. Therefore this study focused on determining the relationship between parenting style and perceived information sources with stunting.

## **Objective**

The study aimed to examine the relationship between parenting style and perceived information sources on stunting among children.

## **Method**

This study used a descriptive research design with a cross-sectional approach. The research was carried out in two working areas of the health center within the Martapura city Sub-district, Martapura 1 Health Center and Martapura 2 Health Center, Banjar Regency, South Kalimantan Province in March and April 2019.

The population in this study was millennial women aged 18-36 years who had children age 1-5 years. Eighty-seven samples were selected by using random cluster sampling. The variable of this research is the behavior of the previous mother with two indicators, namely parenting and information access.

The instrument used in this study was a questionnaire to determine maternal parenting, developed based on parameters to measure parenting (parenting style and health care patterns) of children from millennial generations. Feeding patterns are related to eating consumption patterns, which include food hygiene, preparing food, food safety, eating habits. Health parenting is related to immunization status, place of search for treatment when the child is sick, the practice of feeding when the child is sick, prevention of disease in children. This questionnaire consisted of 18 statements, 12 favorable statements, and six unfavorable statements. Statements are measured using a Likert scale with answer choices very often, often, sometimes, never. Parenting is categorized as positive if  $T \geq \text{mean}$  and negative parenting if  $T \leq \text{indicates}$ . The previous behavioral instrument (millennial generation information access mother was developed by the researcher with a research reference from Calvoporal 2018. The questionnaire consisted of 18 statements with parameters of motivation, usability, socialization, implications, negativity, and implications of millennial mothers' internet use. Positive affirmations contained 12 reports, and negative six comments measured by the Likert scale with the choice of answers strongly agree, agree, disagree, and strongly disagree

then categorized. The data were analyzed through descriptive analysis based on the frequency distribution table.

## Result

Table 1 showed the relationship between parenting style (p-value<0.001) and perceived information sources (p-value<0.001) with stunting. The findings showed that there is a positive correlation between parenting style and perceived information sources with stunting.

Table 1: Relationship between parenting style and perceived information sources with stunting

Variable	Stunting		Nonstunting		p-value
	Frequency	%	Frequency	%	
Parenting style					
Positive	29	33,3	63	72,4	<0,001
Negative	58	66,7	24	27,6	
Perceived information sources					
Internet fans	0	0	14	16,0	<0,001
Productive user	61	70,1	67	77,0	
Careful users	23	26,4	6	7,0	
Audience	3	3,4	0	0	
Bad user	0	0	0	0	

## Discussion

Description analysis based on the frequency distribution table shows that stunting children are more common in mothers with negative parenting. Mother's parenting is a child's need for growth and development, including how to interact, grow attitudes, instill values, and morals. Feeding patterns related to fulfilling food needs, including processing (14). Parenting in this study focused on parenting and parenting health care because the low parenting style can lead to the poor nutritional status of children (15).

Feeding patterns consist of indicators of food hygiene and safety, preparing food, and eating habits. Positive eating patterns are seen from the aspect of food hygiene and security, such as the way mothers wash their hands before cooking, washing vegetables, using the right cutting board, not using seasoning for children. Unclean or unsafe foods can contain microorganisms that cause sick children, such as diarrhea, vomiting, and others. Safe food is food that is free of physical contamination such as hair, nails, metals, rocks, dust, soil, iron that is carried along with food, which causes the digestive tract to be injured. Biological hazards are a result of microbial activities that pollute food products, while chemical hazards are caused by the presence of hazardous substances such as pesticides, cleaning fluids, textile dyes, and preservatives (13). This study proves that mothers who have a negative parenting style are still washing hands, washing vegetables before cutting, and using different cutting boards for side dishes, sometimes more than the group of positive parenting mothers. Other research in Balukamba shows that impaired absorption of nutrients and growth disorders can be affected by pesticides. Toxic substances can cause Environmental Enter Dysfunction (EED), where nutrient intake will not be enough for child development if EED occurs (16).

Mothers who do not maintain the cleanliness and safety of children's food cause various diseases, so it is essential for mothers to have a positive parenting style for children to avoid various health problems that affect the incidence of stunting. The research conducted by Widyaningsih & Anantanyu (2018) in Klaten proved that less

parenting could cause stunting (15). The eating habits applied by mothers with positive parenting are by preparing children's food themselves; for example, mothers do not always buy food to ensure the cleanliness and food safety of their children. Mothers also do not get used to feeding children with bottles and do not give gifts, besides when children eat no more than 30 minutes. This positive parenting style is following the dietary rules recommended by the WHO.

The upbringing of child health care still depends entirely on parents, especially mothers. Indicators of parenting child health care include a place to look for treatment when the child is sick and the practice of feeding when the child is sick (7,17). Based on parenting child health care, mothers who have positive parenting when the condition of sick children mostly do not buy their own medicine but check the child to health workers, then when the child is sick the mother does not feed according to the wishes of the child, but still provides food as usual even with slowly because sick children usually experience a decrease in appetite. Health care by monitoring the growth and development of children in health services has been carried out by most mothers, meaning that maternal awareness regarding children's growth and development is sufficient. Prevention of disease in mothers who have positive parenting is shown in a small number of mothers.

Disease prevention in this study was seen from the consumption of vitamin A supplementation and children who received worm medicine and the presence of mothers in health education. Vitamin A is essential for healthy growth and immune function. Vitamin A deficiency results in the body being susceptible to infection and can also inhibit cell growth, including bone cells (18). Health education in the digital age now allows one to take part in activities without even attending because they can be accessed online during the activity. Mothers can hold as much information as possible about parenting and child health care anytime and anywhere, but not all mothers want and can apply it to parenting. The results of this study were also supported by research in the East Nusa Tenggara region, which showed that 51.2% of parenting styles were less related to the incidence of stunting children. A history of parenting with a category with less chance of 14.5 times stunting compared to a child with a good parenting style (19).

Children who are not stunting are more often found in mothers with positive parenting. The results of this study were also supported by research in the East Nusa Tenggara region, which showed that 51.2% of parenting styles were less related to the incidence of stunting children. A history of parenting with a category with less chance of 14.5 times stunting compared to a child with a good parenting style (19).

Based on the frequency distribution table, it can be analyzed descriptively that the access to information for millennial mothers is mostly, in the stunting and non-stunting groups, included in the category of productive users. These users use internet technology to increase their productivity and to help them achieve high benefits in their implementation or work. Access to information in this study emphasizes the pattern of information seeking through technology that has grown rapidly now, namely through the internet. Access to information is seen from the indicators of motivation for use, internet usability, socialization, negativity, and the implications of internet usage.

The two groups of research suggested that they had sought a lot of information through the internet; most of them used the internet to get the latest news. The internet is also used as an entertainment medium; for example, mothers watch through the youtube feature. The use of the internet can save mothers time in seeking information related to childcare. Also, mothers can ask questions and discuss with peers and experts

if they need an explanation of one new information, but this benefit is not all mothers use it.

Exposure to information media has a vital role as a source of knowledge, strengthen knowledge, and strengthen people's awareness (20). Research in America shows that young adults use the internet to obtain various health-related information (21). This study shows interesting things for mothers who have stunting children when traced to the use of information access, three mothers included in the audience category. This type of audience has a low characterization of socialization and interaction motivation, observing, technology only for communication, information seeking motivation is also low, so it does not expand their minds and knowledge (11). Some individuals who are not interested in this technology think that technology is not relevant to their daily lives because it is considered not to offer benefits or benefits to them (22). This type, if seen from parenting, 2 of which have negative parenting, so this shows that access to information from mothers who are less well contributes to parenting for their children but with a tiny percentage of the total respondents.

Millennial mothers in the control group showed the opposite, namely, there were 14 mothers, including the type of internet technology enthusiasts, and no mothers were among the kinds of viewers and wrong users. This type of fan likes to surf the internet, new technology seekers, have high curiosity, spend internet consumption time on average 4-6 hours (heavy user) (9). The negative from the concept of temporal dissociation or the implication as the experience of technology is that this user is dissolved in the internet interaction so that he is not aware of other stimuli and tends to forget the time (11). Uniquely from this type, 12 mothers were able to maintain a positive parenting style for their children even though it was a type of internet fan.

The most prominent type owned by both groups is productive internet users. Mothers of this type use the internet for work productivity, have high motivation for information search, feel comfortable to use the internet, and this segment has little implication in terms of not dissolving time when using the internet. For the mother group, the internet helps achieve high benefits as a useful tool for productivity and time efficiency (11).

Easy access to information, understanding of usage, and sufficient time to help mothers in seeking information, however, the convenience obtained if it is not used for the search for health information for millennial generations, can be one of the factors that cause access to information not related to the incidence of stunting in Martapura Kota District. In contrast to research in Pakistan, which shows that access to information plays an essential role in raising problems related to child health in Pakistan. This study found a higher likelihood of stunting, wasting, and underweight in children whose mothers did not have proper access to information (23).

The findings of this study are stunting children or not also determined by the behavioral factors of previous millennial mothers. Maternal behavior seen from parenting and adverse health and health is more common in stunting children. The behavior of mothers in accessing information is also decisive because many are found if access to information is productive, then having children who are not stunting. Nurses are expected to provide health promotion about the understanding, causes, and effects of stunting on children so that mothers can change parenting to be positive and access productive information to play a role in preventing stunting. Data collection has been pursued according to the procedures established by the researcher, but in the process, there are still limitations to the study, including respondents who are less scattered

from all work areas of the two health centers and match the age of mothers between cases and controls.

## Conclusion

Parenting and perceived information sources were significantly effect on stunting among children. Nurses should consider the issues when designing the interventions to promote healthy lifestyle among mothers.

## References

1. De Onis M, Dewey KG, Borghi E, Onyango AW, Blössner M, Daelmans B, et al. The world health organization's global target for reducing childhood stunting by 2025: Rationale and proposed actions. *Matern Child Nutr.* 2013;9(S2):6–26.
2. Trihono, Atmarita, Tjandrarini DH, Irawati A, Utami NH, Tejayanti T, et al. Pendek (Stunting) di Indonesia, Masalah dan Solusi. Lembaga Penerbit Balitbangkes. 2015. 218 p.
3. Badan Penelitian dan Pengembangan Kesehatan. Riset kesehatan dasar. Jakarta; 2013.
4. Martorell R, Young MF. Patterns of Stunting and Wasting : *Adv Nutr.* 2012;227–33.
5. Fikawati S, Syafiq A, Veratamala A. Gizi Anak Dan Remaja. Depok: PT. Rajagrafindo Persada; 2017.
6. TNP2K. 100 Kabupaten/kota prioritas untuk intervensi anak kerdil (stunting). Jakarta Pusat; 2017.
7. Tariq J, Sajjad A, Zakar R, Zakar MZ, Fischer F. Factors associated with undernutrition in children under the age of two years: Secondary data analysis based on the Pakistan demographic and health survey 2012–2013. *Nutrients.* 2018;10(6):1–20.
8. Putra YS. Theoretical Review : Teori Perbedaan Generasi. *J Ilm Among Makarti [Internet].* 2017;9(18):123–34.
9. Hasanuddin A, Purwandi L. Millennial Nusantara Pahami Karakternya, Rebut Simpatinya. Jakarta: PT. Gramedia Pustaka Utama; 2017.
10. Prior S. The Millennial Mum – Technology Use by New Mothers. 2013;
11. Calvo-Porrall C, Pesqueira-Sanchez R, Faiña Medín A. A Clustered-Based Categorization of Millennials in their Technology Behavior. *Int J Hum Comput Interact.* 2018;0(0):1–9.
12. APJII. Penetrasi & Perilaku Pengguna Internet Indonesia 2017. Asos Penyelenggara Jasa Internet Indones. 2017;1–39.
13. Adriani M, Wijatmadi B. Pengantar gizi Masyarakat. Jakarta: Kencana; 2016.
14. Supariasa B, Bakri B. Penilaian Status Gizi. *Penilai Status Gizi.* 2014;194–5.
15. Widyaningsih NN, Anantanyu S. Keragaman pangan , pola asuh makan dan kejadian stunting pada balita usia 24-59 bulan. *J Gizi Indones.* 2018;7(1).
16. Kartini A, Subagio HW, Hadisaputro S, Kartasurya MI, Suhartono S, Budiyo B. Pesticide Exposure and Stunting among Children in Agricultural Areas. *Int J Occup Environ Med.* 2019;10(1):17–29.
17. Casale D, Espi G, Norris SA. Estimating the pathways through which maternal education affects stunting: evidence from an urban cohort in South Africa. *Public Health Nutr.* 2018;(17):1–9.
18. Adriani M, Wirjatmadi B. Gizi Dan Kesehatan Balita. Jakarta: Kencana; 2014.

19. Nabuasa C, Juffrie M, Huriyati E. Riwayat Pola Asuh, Pola Makan, Asupan Zat Gizi Berhubungan Dengan Stunting Pada Anak 24-59 Bulan di Biboki Utara, Timor Tengah Utara, Nusa Tenggara Timur. *J Gizi Dan Diet Indones*. 2013;1(3):31-43.
20. Sarma H, Khan JR, Asaduzzaman M, Uddin F, Tarannum S, Hasan MM, et al. Factors Influencing the Prevalence of Stunting Among Children Aged Below Five Years in Bangladesh. *Food Nutr Bull*. 2017;38(3):291-301.
21. Galeshi R, Sharman J, Cai J. Equality, Diversity, and Inclusion. *Equal Divers Incl An Int J*. 2018;
22. Park Y, Son H, Kim C. Investigating the determinants of construction professionals' acceptance of web-based training: An extension of the technology acceptance model. *Autom Constr [Internet]*. 2012;22:377-86.
23. Tariq J, Sajjad A, Zakar R, Zakar MZ, Fischer F. Factors associated with undernutrition in children under the age of two years: Secondary data analysis based on the Pakistan demographic and health survey 2012-2013. *Nutrients*. 2018;10(6):1-20.