ISSN 2598-3180 (Online)
JOURNAL OF MIDWIFERY
Research and Practice

Article

Description of Parenting Patterns on Stunting and Normal Children in the Specific Area Stunting of Pasaman and West Pasaman District, West Sumatra

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SUBMISSION TRACK

Recieved:
Final Revision:
Available Online:

KEYWORDS

Stunting, specific area of stunting, parenting, intake

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A B S T R A C T

Stunting is the effect of a systemic condition of chronic malnutrition which affects about a quarter of children under five years of age worldwide. There are 7.6 million (37%) Indonesian children suffering from stunting and the rate of stunting in West Sumatra is above the national figure of 46.1%. That number shows that many children need more attention, because they don't grow well. The nutrition intervention program that has been running so far has not been able to optimally improve the condition of stunting children. The purpose of this study was to determine the profile of parenting stunting and the difference with normal children in the specific area of stunting Pasaman and Pasaman Barat District. This study was conducted through several stages, which is data collection using a questionnaire. From this study shown that breastfeeding and complementary feeding are almost no different from groups stunting with normal children; good parenting, health and psychosocial stimulation are still lacking; the socioeconomic level of stunting children is lower than normal children. It is hoped that in the future prevention of intrautrin can be carried out by maintaining quality intake and health status; keep the intake in a balanced nutritional status, especially aspects of animal protein; and maintaining environmental sanitation and optimal parenting from the family.

I. INTRODUCTION

Stunting affects about a quarter of children under five years of age worldwide. Stunting is the effect of a systemic condition with chronic malnutrition. Childhood stunting can develop during the first two years of life and is largely caused by nutritional deficiencies and infectious diseases (Black et al., 2013). In 2014, there were an estimated 159 millionchildren stuntingwho almost all lived in low-income countries (Black et al., 2013, Semba et al., 2016, UNICEF /World Health Organization/ World Bank Group, 2015). Data from the Indonesian Ministry of Health in 2013 reported that there were 7.6 million (37%) Indonesian children suffering from stunting. The number ofpatients stunting in West Sumatra is above the national figure of 46.1%. That number shows that many

children need more attention, because they don't grow well. (RISKESDAS, 2013)

Stunting has long-term effects such as decreased survival rates, impaired cognitive and motor development, decreased economic productivity, and a higher chance of living in poverty in adulthood (Black et al., 2013, Grantham-McGregor et al., 2007). WHO has set a global reduction target of 40% of children under five stunted in 2025 (de Onis et al., 2013). The reduction in stunted children is included in the United Nations Sustainable Development Goal # 2 (Murray, 2015).

The nutrition intervention program that has been running so far has not been able to optimally improve the condition of stunted children. The results of observations, analysis and modeling of nutrition intervention programs from 34 countries showed that the implementation of 10 evidence-based nutritional interventions namely folic acid supplementation, balanced protein supplementation for mothers, calcium supplementation for mothers, multiplesupplementation smicronutrient during pregnancy, promotion of breastfeeding, supplementary feeding sufficient, the provision of vitamin A and zinc supplementation with a coverage rate of 90% the results were only able to reduce therate stunting by 15% (Bhutta et al., 2013). This number is far from an international goal to reduce stunting. The low understanding of molecular pathogenesis and the mechanism ofmetabolism stunting contribute to the effectiveness of nutritional interventions in improving and pursuing the growth ofchildren stunting.

Parenting, health, clean, hygiene will indirectly affect the nutritional status of children, parenting is manifested in several activities usually carried out by mothers including breastfeeding and MP-ASI, further stated, care is influenced by the availability of resources in the household including education, knowledge, maternal health and social support (Engle et al., 1997).

The practice of psychosocial care is defined as the behavior practiced by caregivers (mothers, fathers, grandmothers, or other people) in providing food, maintaining health, providing stimulus and emotional support needed by children for growth and development processes (Brooks et al., 2011).

This study is one part of a large study through the collaboration between the Directorate of Nutrition of the Indonesian Ministry of Health and the Faculty of Medicine of Andalas University in 2018 regarding the intervention package on nutrition issues and the application of the first 1000 days of life at thespecific area stunting in Pasaman and West Pasaman districts of West Sumatra province with the number contract KN01.01 / 2/1302/2018 and 2655 / UN.16.2 / TU / 2018 dated 6 April 2018.

This study was aimed to determine the profile of parenting stunting and difference with normal children in the specific area of stunting Pasaman and West Pasaman District.

II METHODS

This was quantitative study using a cross sectional design, data on independent variables and dependent variables are collected and assessed at a time. This study was conducted on 185 children aged 0-3 years, consisting of groups of stunting 94 respondents and not stunting 91 respondents.

III RESULTS AND DISCUSSION

1.1 Respondent Characteristics

Characteristics of respondents in this study can be seen as follows.

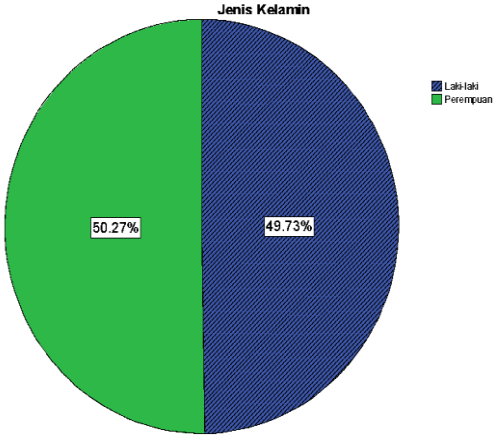

Figure 1. The picture of the sex of the child

Figure 1 shows that more than half of the respondents (50.27%) were male and less than half of the respondents (49.73%) were female.

Variable	Nutritional Status		p-value
	Stunting (n = 94)	Normal (n = 91)	
Immunization			0.329
Complete	88 (93.6)	88 (96.7)	
Incomplete	6 (6.4)	3 (3.3)	
Vitamin A in February			0.595
Already	93 (98.9)	89 (97.8)	
Not at all	1 (1.1)	1 (1.1)	
Age is not enough when the month Vitamin A	0 (0)	1 (1.1)	

Table 1. Characteristics of children

Variable	Nutritional Status		p value
	Stunting (n = 94)	Normal (n = 91)	
Age of child (month), mean ± SD	23.97± 6.74	24.44± 6.95	0.640
Infant birth weight (gram), mean ± SD	3284.04± 480.65	3210.88± 478.83	0.301
Infant birth length (cm), mean ± SD	41.54± 16.80	46.93± 8.85	0.007 *
Birth order of the child, mean ± SD	2.56± 1.54	2.60± 1.44	0.854

Table 1 shows that there is a relationship between infant birth length and incidence of stunting (p <0.05). But there was no correlation between age, birth weight, birth order of children with the incidence of stunting (p> 0.05).

1.2 Feeding Patterns

An overview of parenting can be seen in table 2 below.

Table 2. An overview of feeding patterns

Variable	Nutritional Status		p value
	Stunting (n = 94)	Normal (n = 91)	
Giving MP-ASI	94 (100)	91 (100)	N / A
Fruit Juice			0.974
According to age	42 (44.2)	40 (44.4)	
Not according to age	52 (55.8)	51 (55.6)	
Milk porridge			0873
According to age	28 (29.5)	28 (31.1)	
Not suitable for age	66 (70.5)	61 (68.9)	
Soft food			0.882
According to age	38 (40)	37 (41.1)	
Not according to age	56 (60)	53 (58.9)	
Ordinary food			0.384
According to age	25 (26.3)	18 (20)	
Not according to age	69 (73.7)	71 (80)	

Table 2 is known that there is no relationship between feeding patterns with the incidence of stunting (p> 0.05).

3.2 Health Care Patterns

An overview of health care patterns can be seen in the following tables.

Table 3. Description of health care patterns related to weighing children

Variable	Nutritional Status		p-value
	Stunting (n = 94)	Normal (n = 91)	
Defecateies weighed consecutively in the last 3 months weighed			0.884
Regularly	66 (70.2)	63 (69.2)	
Weighted irregularly	28 (29.8)	20 (30.8)	
Not weighed	0 (0)	0 (0)	
There are no records that can be trusted	0 (0)	0 (0)	
Ordinary children weighed by			
Posyandu	94 (100)	91 (100)	
PAUD	0 (0)	0 (0)	
RS	0 (0)	1 (1.1)	
Puskesmas / Pustu / Polindes	16 (17)	11 (12.1)	
Doctors /	5 (5.3)	3 (3.3)	

Midwives / Nurses			
Houses	0 (0)	0 (0)	
6 months weighing information source lastly			0.944
KMS / KIA / weighing register	46 (48.9)	45 (49.5)	
mother's confession	48 (51.1)	46 (50.5)	

Table 3 shows that there is no relationship between health care patterns related to weighing children with incidence stunting (p> 0.05).

Table 4 shows that there is no relationship between health care patterns related to immunization children withincidence stunting (p> 0.05).

3.3 Hygiene care patterns

Table 5. Description of parenting hygiene related to family water source

Variable	Nutritional Status		p-value
	Stunting (n = 94)	Normal (n = 91)	
Source of drinking water family			0.531
Water spring	15 (16)	9 (9.9)	
Protected water spring	2 (2.1)	6 (6.6)	
Open dug well	7 (7.4)	4 (4.4)	
Protected dug well	3 (3.2)	3 (3.3)	
Tap water / PDAM	57 (60.6)	63 (69.2)	
Drill well / pump	3 (3.2)	1 (1.1)	
Water river / lake	2 (2.1)	2 (2.2)	
Gallon / packaging water	5 (5.3)	3 (3.3)	
Water used for making milk / milk porridge			0.924 Boiling
water cooked	78 (83)	77 (86.6)	
Cooked water but already cold	11 (11.7)	9 (9.9) Un	
-cooked	5 (5.3)	5 (5.5)	
water			

Based on table 5. There was no relationship between parenting hygiene related to family water sources and the incidence of stunting (p> 0.05).

Table 6. Description of children's personal hygiene patterns

Variable	Nutritional Status		p-value
	Stunting (n = 94)	Normal (n = 91)	
When feeding children, spoons, plates and cups of children are washed first			0.229
Always wash again	86 (91.5)	86 (94.5)	
Rarely washed again	5 (5.3)	5 (5.5)	
Never washed again	3 (3.2)	0 (0)	
Mother washed her hands when giving a feeding child			0.974
Yes	92 (97.9)	89 (97.8)	
No	2 (2.1)	2 (2.2)	
Children wash their hands with soap before and after meals			0.528
Yes	23 (24.5)	27 (29.7)	
No	71 (75.5)	64 (70.3)	

Based on table 6 There is no relationship between parenting hygiene related to family water sources and the incidence of stunting (p> 0.05).

Table 7. Description of parenting hygiene when defecate

Variable	Nutritional Status		P-value
	Stunting (n = 94)	Normal (n = 91)	
Mother's child defecate at			0.270
Toilets	46 (48.9)	43 (47.3)	
Gardens	0 (0)	1 (1.1)	
Rivers	43 (45.7)	36 (39.6)	
Trench	5 (5.3)	11 (12.1)	
Wash hands with			0.058

soap after defecate			
Yes	64 (68.1)	74 (81.3)	
No	30 (31.9)	17 (18.7)	
Family toilet at home			0.527
Yes	36 (38.3)	40 (44)	
No	58 (61.7)	51 (56)	

Based on table 7 There was no relationship between parenting hygiene related to defecation and the incidence of stunting (p> 0.05).

3.4 Psychosocial Parenting

Table 8. Psychosocial parenting description

Variable	Nutritional Status		p-value
	Stunting (n = 94)	Normal (n = 91)	
Psychosocial Pattern Category			Care 0.765
- Low	58 (61.7)	52 (57.1)	
- Medium	34 (36.2)	36 (39.6)	
- Good	2 (2.1)	3 (3.3)	

Table 8 shows that there is no correlation between psychosocial parenting and the incidence of stunting (p> 0.05). there is still a low level of psychosocial parenting between stunting children and normal children.

3.5 Human Resources

Human resources can be seen in table 9 below.

Table 9. Nurturing human resources

Variable	Status Nutrition		p value
	Stunting (n = 94)	Normal (n = 91)	
HR who often care for			
Mother	90 (95.7)	85 (93.4)	N / A
Husband	1 (1.1)	0	
Grandmother / grandfather of child	3 (3.2)	5 (5.5)	
Mothers who are immature	0	1 (1.1)	
HR who replace mothers if there is no husband	19 (20.2)	29 (31.9)	0.101
Grandmother / grandfather of a child	34 (36.2)	29 (31.9)	
Sister / brother mother	4 (4.3)	8 (8.8)	
Mothers aged> 15 years	1 (1.1)	3 (3.3)	
Children who are minors	7 (7.4)	7 (7.7)	
etc.	29 (30.9)	15 (16.5)	
Replacing work household			
yes	30 (31.9)	46 (50.5)	0.015 *
None	64 (68.1)	45 (49.5)	
Involvement of husband			
Not participating	10 (10.6)	11 (12.1)	0.729
In a certain period of time	64 (68.1)	59 (64.8)	
Have a big role	19 (20.2)	21 (23.1)	
and others	1 (1.1)	0	

Table 9 shows that there is a relationship between the existence of human resources that replace domestic work and the incidence of stunting (p <0.05). However, there is no relationship between human resources who often care, substitute human resources if the mother does not exist and the involvement of the husband with the incidence of stunting.

Table 10. Length of day average Mother caring for children

Variables	Nutritional Status		p value
	Stunting (n = 94) Mean ± SD	Normal (n = 91) Mean ± SD	
Breastfeeding (hours)	0.73 ± 0.28	0.62 ± 0.42	0.553
Preparing food (hours)	0.61 ± 0.59	0.36 ± 0.06	0.005 *
Feeding children (hours)	0.48 ± 0.39	0.34 ± 0.06	0.140
Bathing and dressing children(hours)	0.37 ± 0.02	0.15 ± 0.09	0.002 *
Helps during defecate and	0.30 ± 0.06	0.12 ± 0.02	0.003 *

urinate (hours)			
Carrying children (hours)	1.19 ± 1.12	0.79 ± 0.02	0.013 *
Playing with children (hours)	2.66 ± 1.94	3.18 ± 2.04	0.081
Putting the child to sleep (hour)	0.66 ± 0.03	0.71 ± 0.05	0.709
Looking for treatment and treatment when sick (hours)	0.24 ± 0.01	0.19 ± 0.06	0.419

Table 10 shows that there are differences in the average length of preparing food, bathing and putting on children's clothes, helping during defecation and BAK and carrying children in stunting and non-stunting children ($p < 0.05$). But there is no difference in the average length of giving ASI, providing food for children, playing with children, sleeping children and seeking treatment and care when sick in stunting and non- stunting children ($p > 0.05$).

4. Discussion

4.1 Feeding Patterns Parenting style of

feeding children in breastfeeding 44.8% ofchildren stunting who were given formula milk and 49.1% of normal children were given formula milk.

If you look at the picture of parenting eating children at the study site, it still seems not good, especially inchildren stunting. The implementation of a good diet by the mother or substitute for a caregiver is one that determines the amount of theintake child's. Ultimately it relates to the nutritional status of children (Engle, 1995; Masrul, 2005).

4.2 Health Care Patterns

From the results of the study, one-third of the samples ofchildren stunting and normal children were not regularly weighed in Posyandu / Puskesmas and less than half there was no proof of payment in the KIA book. Based on this, it turns out that there are still many children who do not monitor growth and development properly (Soetjianingsih, 1998). Of course this has an impact on efforts to prevent stunting. Giving immunization by giving vitamin A is relatively better.

4.3 Hygiene Care Patterns

From drinking water sources, the family ofchildren stunting and normalis almost the same around 51–56%. This means that there are half of them that cannot be ascertained that the source of drinking water is good. If drinking water is not clean the risk of diarrhea will be high. Early life in 2 years with stunting has a history of diarrhea> 5 times / year (Verley KG et al., 2011).

To defecate more than 45% ofchildren stunting and 36% of normal children throw in the river. This situation shows that the condition of their cleanliness and hygiene is still lacking. Availability of latrines in households is still lacking. 61.7% ofchildren stunting do not have latrines at home and 56% of normal children do not have latrines at home.

4.4 Psychosocial Care Patterns

from measurements with HOME on child psychosocial stimulation are relatively less than normal with a score of <40. The results of structured observations by pediatric psychiatrists as many as 15 people, samples of mother and child relationships there also showed a lack of interaction and stimulation of the mother.

From the results of Mc Gregor's study in Guatemala 1987, the results of adequate stimulation showed considerable benefits for child development (Jalal, 2008). The low psychosocial stimulus certainly has an impact on the growth of their children.

4.5 Nurturing HR

Most of the primary caregivers are mothers, both in normal children andchildren stunting. The husband is quite instrumental in replacing parenting if the mother is absent from a normal child compared to achild stunting. In normal children, there are substitutes for maternal housework compared tochildren stunting. Parenting resources, substitutes for

maternal work are important factors in the child's growth process (Engle PL etL.., 1997).

From this study it was found that there was no difference in the length of care between stunting children and normal children. Husband's support in parenting between the two groups of children is not much different. But substitutes for maternal work are very important for child development (Engle PL et al., 1997).

IV CONCLUSION

- The administration of MP-ASI is almost no different from the group stunting compared to normal children.
- Good parenting for stunting children and normal children are still lacking.
- The health care pattern of stunting children and normal children is still lacking.
- Parenting psychosocial stimulation of stunting children and normal children is still not good.
- Most of the main caregivers are mothers, both in normal children and stunting children.
- The husband is quite significant in replacing parenting if the mother is absent in normal child compared to stunting child.
- Substitution of mother's work during parenting is very important.
- From this study it was found that there was no difference in the length of care between stunting children and normal children.

REFERENCES

Black R.E., Victora C.G., Walker S.P. Maternal and child undernutrition and overweight in low-income and middle-income countries. Lancet. 2013;382:427–451.

Bhutta, Z.A., Das, J.K., Rizvi, A., et al., 2013. Evidence-based interventions for improvement of maternal and child nutrition: what can be done and at what cost? Lancet 382, 452–477.

de Onis M., Onyango A., Borghi E. Worldwide implementation of the WHO Child Growth Standards. Public Health Nutr. 2012;15:1603–1610.

Engle P.L,Menon P., Haddad L. 1995. Care and Nutrition: Concepts and Measurement International Food Policy Reseacrh.

Henmughan HB, Mc Gregor SG. 2003. Refondasi Pertumbuhan Usia. Gizi Kesehatan Masyarakat EGC. Hal 206 – 307.

Henmughan HB, Mc Gregor GG. 2005. Pemberian ASI dan Pengasuh Terhadap Tumbuh Kembang Anak Dalam: Gizi Kesehatan Masyarakat. EGC. Hal: 300 – 310.

Jellife D.B. 1989. Community Nutrional Assessment. Oxford University Press. New York.

Jonssan U. 1983. Nutrition and The United Nations Convention and The Rights of The Child Occasional Papers. Child Right Series No.5.

Kemenkes. 2007. Riset Kesehatan Dasar

Kemenkes. 2010. Riset Kesehatan Dasar

Masrul 2005. Kajian Peranan Sumber Daya Pengasuhan Terhadap Tumbuh Kembang Bayi Usia 6 – 12 bulan Pada Keluarga Etnik Minangkabau di Pedesaan Provinsi Sumatera Barat. Disertasi: Program Pasca Sarjana Universitas Airlangga.

Murray C.J. Shifting to sustainable development goals–implications for global health. N. Engl. J. Med. 2015;373:1390–1393.

Semba R.D. Nutrition and development: a historical perspective. In: Semba R.D., Bloem M.W., editors. Nutrition and Health in Developing Countries. second ed. Humana Press; Totowa, NJ: 2008. pp. 1–31.

Soetjimipsil, Ranuh. 1998. Strategi Kelangsungan Hidup Anak Dalam; Tumbuh Kembang Anak. Hal: 127 – 140.

UNICEF/World Health Organization/World Bank Group . United Nations Children's Fund, World Health Organization, and World Bank Group. 2015. Levels and Trends in Child Malnutrition: Key Findings of the 2015 Edition.([http://www.who.int/nutgrowthdb/jmebrochure2015.pdf?ua=1]