

The Influence of Personal Hygiene on Stunting Occurrence

¹Nuraina*, ²Anna Malia, ³Sri Raudhati

^{1,2,3}Faculty of Health, Universitas Almuslim, Bireuen-Aceh

Corresponding author: Nuraina, e-mail: nurainaramli28@gmail.com

Co-author : Anna Malia, e-mail: amalia.anwar33@gmail.com, Sri Raudhati, e-mail: sriraudhati@gmail.com

Submitted: 27/11/2022 **Revised:** 17/01/ **Accepted:** 19/03/2023 **Published online:** 29/04/2023

Doi: <https://doi.org/10.35308/j-kesmas.v7i2.7363> **How to cite this article:** Nuraina., Malia. A & Raudhati. S. (2023). The Influence of Personal Hygiene on Stunting Occurrence. *J-Kesmas: Jurnal Fakultas Kesehatan Masyarakat (The Indonesian Journal of Public Health)*. 10(1): 65-69

Abstract

Stunting is a significant problem that Indonesia must overcome to produce an excellent cognitive and physical development generation. Stunting is a problem in Bireuen Regency, Indonesia, and must be managed because it has long-term impacts on the future generation. According to data from the World Health Organization (WHO), in 2017, Indonesia had the third-highest stunting prevalence rate globally, at 32.6%. Even though the stunting prevalence rate in Indonesia decreased from 37.2% in 2013 to 27.7% in 2018, it is still far from the WHO target of not exceeding 20%. Therefore, the government is making efforts to reduce the prevalence of stunting in Indonesia by issuing The Regulation of the Republic of Indonesia's President Number 72 the Year 2021 about the acceleration of stunting decrease. Based on the result of a nutrition case study of Indonesia in 2021, Aceh's stunting rate reached 33,18% until it was included among the seven provinces with the highest stunting cases in Indonesia. One of the regencies in Aceh Province that needs immediate solutions to solve stunting is Bireuen Regency. The purpose of this research was to find out the influence of personal hygiene on stunting occurrence. The study used an analytical, quantitative method with a cross-sectional approach. This method aims to analyse the impact of personal hygiene on stunting occurrence in Pandrah Sub District Bireuen Regency. The sample selection technique in this research was the entire population, namely 62 people. Based on the research conducted in Pandrah Sub District, Bireuen Regency, the research results showed that personal hygiene had a significant influence on stunting occurrence, with a p-value of 0.001 (which is less than the significance level of 0.05). It could be concluded that personal hygiene significantly influences stunting occurrence.

Keywords: Influence; Hygiene; Stunting;

Introduction

Stunting is an enormously worrying problem that must be overcome immediately in Indonesia to produce an innovative and quality future generation. According to the World Health Organization (WHO) data, in 2017, Indonesia ranked third with the highest prevalence of stunting cases, 32.6% (WHO, 2017). Besides, based on RISKESDAS data in 2018, stunting cases in Indonesia were 27,7%, which experienced a decrease from the year 2013 to 37,2%. Even though there was a decrease, it was still far from the WHO target; namely, it should be at most 20%. Therefore, the government is making efforts to accelerate the decrease of the stunting number in Indonesia by regulating the Republic of Indonesia's President Number 2 in the Year 2021 about accelerating the stunting decline (RISKESDAS, 2018).

Based on the Nutrition Status Study of Indonesia in 2021, Aceh's stunting rate reached 33,18% until it was included among the seven provinces with the highest stunting cases in Indonesia (SSGI, 2021) (Figure 1). One of the regencies in Aceh Province that needs an immediate solution to overcome the stunting problem is

Bireuen Regency. Based on the Regulation of Bireuen Regent, the focus location of stunting in 2021-2022 was 52 villages. However, most villages were in the Pandrah Sub District (Regulation of Bireuen Regent, 2020). Based on the explanation above, stunting cases must be overcome to sustain quality human life.

Stunting could occur because of direct factors and indirect factors. The primary stunting factor was the mother's nutrition when pregnant, the toddler's nutrition, and infectious disease. Toddlers who experience stunting are challenging to fix their growth and development until it continues until their adult age (Apriluana and Fikawati S, 2018). Therefore, it needs routine monitoring of growth and development during the golden age period until it can be detected as early as possible when growth and development disorder occurs in toddlers (Liviana et al., 2019). Besides, it needs fetal stimulation from the womb until the fetus can grow and develop optimally (Nuraina et al., 2022).

Stunting can also occur because of indirect factors that could happen in various aspects, one of which is Water, Sanitation, and Hygiene (WASH) consisting of the source of drinking water, water drinking physical

water quality, and toilet ownership (Uliyanti et al., 2017). Environmental sanitation and personal hygiene are essential to stunting occurrences such as the frequency of children experiencing infectious diseases.

Still, the low habit of washing hands using soap correctly could increase diarrhoea occurrence. The things considered less critical, such as open defecation, could significantly impact health (Laili AN, 2018).



Figure 1. The prevalence of stunting toddlers in Indonesia (Aceh was a high category with a percentage of 33,18%). Source: SSGI, 2021

The practice of poor personal hygiene can cause a high risk of bacteria emergence, which can impact the children’s health, until if it is not followed up and balanced with proper intake, then growth failure condition would occur. Children who lack nutrition will have low body endurance towards disease until they quickly suffer from infections and illnesses, which can influence their cognitive development and inhibit their physical and mental development (Access, 2017).

Stunting has become a very worrying problem in Bireuen Regency and must be immediately addressed because it can impact the future generation. Therefore, this research aimed to prevent stunting by improving personal hygiene practices and meeting the Clean and Healthy Behavior (PHBS) standard. The urgency of this research was pivotal to be carried out. Only today, there has yet to research in Aceh, especially Bireuen Regency, which investigated the influence of personal hygiene on stunting occurrence.

Methods

This research was conducted in Pandrah Sub District, Bireuen Regency. The research approach of analysis of personal hygiene influence on stunting occurrence in Pandrah Sub District employed an analytical, quantitative method with a cross-sectional approach. This method aimed to analyse the impact of personal hygiene on stunting events in Pandrah Sub District, Bireuen Regency. The sampling technique in this research was the entire population, with 62 people.

Results

The analysis results obtained research results as follows:

The Characteristics of a Toddler’s Mother

Table 1. The Characteristics of Toddlers’ Mothers Based on Age, Education, and Occupation

Characteristics	f	%
The Mother’ Age (years old)		
15-25	10	16,1
26-35	36	58,1
36-45	14	22,6
46-55	2	3,2
Education		
Elementary School	11	17,7
Junior High School	15	24,2
Senior High School	27	43,5
Bachelor Degree	9	14,5
Occupation		
Farmer	27	43,5
Housewife	29	46,8
Civil Servant	6	9,7
Total	62	100

Based on Table 1 above, it could be seen that the majority of mothers’ age were category 26-35 years old, with a total of 36 people (58,1%), the mother’s education in the Senior High School category was 27 people (43,5%), and the mothers’ occupation in housewife category were 29 people (46,8%).



Toddlers' Characteristics

Table 2. Toddlers' Characteristics Based on Age and Gender

Characteristics	f	%
Toddlers' Age (months)		
13-24	12	19,4
25-36	17	27,4
37-48	33	53,2
Gender		
Male	25	40,3
Female	37	59,7
Total	62	100

Based on Table 2 above, it could be seen that the majority of toddlers' age were in the category of 37-48 months in amount of 33 people (53,2%), and the majority of their gender was in the female class in the amount of 37 people (59,7%).

Distribution of Stunting Occurrence

Table 3. Frequency Distribution of Stunting Occurrence on Toddlers

Stunting Occurrence	f	%
Stunting	13	21
Normal	49	79
Total	62	100

Based on Table 3 above, the research measurement result showed that toddlers who experienced stunting in Pandrah Sub District, Bireuen Regency, with high body measurement, were divided into Z-Score < -2 SD, namely in the amount of 13 people (21%).

Distribution of Personal Hygiene Behavior

Table 4. Frequency Distribution of Personal Hygiene Behavior

Personal Hygiene	f	%
Good	47	75,81
Poor	15	24,19
Total	62	100

Table 4 above showed that the majority of respondents who do personal hygiene in the excellent category were 47 (75,81%).

The Influence of Personal Hygiene on Stunting Occurrence

Table 5. The Influence of Personal Hygiene on Stunting Occurrence

Personal Hygiene	Stunting Occurrence				Total		p-value
	Stunting		Normal		f	%	
	f	%	f	%			
Good	2	3,23	47	75,81	49	79,03	0,001
Poor	11	17,74	2	3,23	13	20,97	
Total	13	20,97	49	79,03	62	100	

Based on Table 5 above, the research results showed that personal hygiene influenced stunting occurrence with a p-value of 0,001 (< 0,05).

Discussion

The research conducted in Pandrah Sub District Bireuen Regency showed that personal hygiene influences stunting occurrence with a p-value of 0,001 (<0,05). Personal hygiene has a significant impact on stunting occurrence. This is in line with the research conducted by Bella (2019), who stated that cleanliness habit significantly correlates to hunting event. Self or environment cleanliness is vital to children's growth and development. Body, food, and environmental cleanliness play a significant role in health care, which will prevent infectious disease as the causative factor of nutrition status in children.

Besides that, the research conducted by Kusuma (2019) stated that the good or bad of personal hygiene could influence children's health, marked by many children who understand and know about the things

correlated to personal hygiene and the importance of maintaining self-cleanliness. This shows the necessity of a positive attitude and parents' awareness concerning the children's attitude toward personal hygiene so that the children could fix their attitude towards a more positive attitude and self-cleanliness.

Another research also mentioned that bad personal hygiene and environmental condition enables infectious disease such as diarrhoea and respiratory system infection to cause stunting (Apriluana & Fikawati, 2018). In daily life, cleanliness is essential and must be paid attention to it because it influences someone's health and physical. Individual values and habits strongly affect cleanliness itself. Those enormously influential things are culture, society, family, education, and perception of someone towards health and development level (Saputra, 2019).

The research conducted in Pandrah Sub District Bireuen Regency is also by the research carried out by Nasrul (2018); toddlers who do not have hand



wash habits own the risk of experiencing stunting, and it could be proven based on the result of the chi-square test which showed p-value 0,000 ($< 0,05$) which means that there is a significant correlation between the habit of hand wash and stunting occurrence (Nasrul, 2018). Similar research was held by Sinatra and Muniroh (2019), showing 87,9% of respondents whose hand wash habits were terrible in the case group, while 45,5% were in the control group with less good hand wash habits. The chi-square test result showed the p-value of hand wash habit on stunting occurrence in the amount of 0,000, which means there is a correlation between hand wash habit and stunting occurrence (Sinatrya & Muniroh, 2019).

This shows that the hygiene factor, namely hand wash habit, is also a risk factor which plays an essential role in stunting occurrence at the household level. Washing hands with soap, a hygiene activity, is cleaning the hand with flowing water and soap to be clean and could cut off the germ chain. The Health Ministry of the Republic of Indonesia has determined a critical time to wash hands using soap until becoming a habit, namely before eating, before processing and serving food, before breastfeeding, before feeding infants/toddlers, after defecating/peeing, and after contact with animals (Sinatra & Muniroh, 2019).

The Practice of washing toddlers' hands in this research was less concern. Some respondents were known for not applying cleanliness on toddlers, especially after playing; they did not wash their hands using soap and flowing water. This showed that the parents paid less attention to toddlers' cleanliness because the children were not encouraged to wash their hands after playing. If this habit continues, then toddlers will be easily infected by diseases.

Conclusion

The research conducted in Pandrah Sub District Bireuen Regency showed that personal hygiene influences stunting occurrence with a p-value of 0,001 ($< 0,05$). Thus, personal hygiene has a significant impact on stunting events. This research is expected to become a reference for future researchers. Future researchers could conduct the study with more variables and different research methods.

Acknowledgement

Thank you to Almuslim University, who has supported and funded this research until it can be implemented and finished as expected.

Author Contribution and Competing Interest

Thank you to all authors for their cooperation and contribution towards the writing process of this research article.

References

- Access, O. (2017). Hubungan Riwayat Penyakit Diare dan Praktik Higiene dengan Kejadian Stunting pada Balita Usia 24-59 Bulan di Wilayah Kerja Puskesmas Simolawang, Surabaya The Relations Between Diarrheal Disease History and Hygiene Practices with Stunting Incidences Among. 243–251. <https://doi.org/10.20473/amnt.v1.i3.2017.243-251>
- Apriluana, G., & Fikawati, S. (2018). Analisis Faktor-Faktor Risiko terhadap Kejadian Stunting pada Balita (0-59 bulan) di Negara Berkembang dan Asia Tenggara. *Jurnal Media Litbangkes*, Vol. 28 No. 4, 253.
- WHO. (2017). Levels and trends in child malnutrition. Geneva.
- Bella, Febriani Dwi. 2019. Hubungan Pola Asuh dengan Kejadian Stunting Balita dari Keluarga Miskin di Kota Palembang. *Jurnal Gizi Indonesia (The Indonesian Journal of Nutrition)*. Vol.8, No.1: 31-39
- Hossain, S., Ahmed, F., Hossain, S., & Sikder, T. (2018). Nutritional Status and Basic Hygiene Practices of Rural School Age Children of Savar Region, Dhaka, Bangladesh. *Central Asian Journal of Global Health*, 7(1). <https://doi.org/10.5195/cajgh.2018.282>
- Kusuma, A. N. (2019). Determinan Personal Hygiene Pada Anak Usia 9–12 Tahun. *Faletehan Health Journal*, 6(1), 37–44. <https://doi.org/10.33746/fhj.v6i1.47>.
- Laili, A. N. (2018). Pengaruh Sanitasi di Lingkungan Tempat Tinggal terhadap Kejadian Stunting pada Balita (Studi di Wilayah Kerja Puskesmas Sumberjambe, Puskesmas Ksiyan dan Puskesmas Sumberbaru Kabupaten Jember. *Jurnal Kebidanan*, 8(1), 28–32.
- Liviana, P., Hermanto, & Pranita. (2019). Karakteristik Orang Tua dan Perkembangan Psikososial Infant. *Jurnal Kesehatan* Vol.12, No. I, 2.
- Nasrul. (2018). Pengendalian Faktor Risiko Stunting Anak Balita di Sulawesi Tengah. *Jurnal Kesehatan Masyarakat*, Vol 8 No. 2, 131–146
- Nuraina, N., Sunarsih, T., & Astuti, D. (2022). Perceptions of Pregnant Mothers in Stimulating the Fetus. *Indonesian Journal of Global Health Research*, 4(4), 837-844. <https://doi.org/10.37287/ijghr.v4i4.1324>



Peraturan Bupati Bireuen Nomor 30 Tahun 2020 tentang Peran Gampong dalam Penurunan Stunting.

Riset Kesehatan Dasar (Riskesdas). (2018). Badan Penelitian dan Pengembangan Kesehatan Kementerian RI.

Saputra, R. (2019). Faktor yang Berhubungan dengan Kepemilikan Jamban Keluarga dan Personal Hygiene di Desa Kuala Lama Tahun 2018. Fakultas Kesehatan Masyarakat Universitas Sumatera Utara, 22

Sinatrya, A. K., & Muniroh, L. (2019). Hubungan Faktor Water, Sanitation, dan Hygiene (WASH) dengan Stunting di Wilayah Kerja Puskesmas Kotakulon .Amerta Nutrition, 166-167

Studi Kasus Gizi Indonesia. (2021). <https://www.litbang.kemkes.go.id/buku-saku-hasil-studi-status-gizi-indonesia-ssgi-tahun-2021>.

Uliyanti, Tamtomo, D. G., & Anantanyu, S. Faktor yang Berhubungan dengan Kejadian Stunting pada Balita Usia 24-59 Bulan. Jurnal Vokasi Kesehatan, 3(2), 67-77. <http://ejournal.poltekkes-pontianak.ac.id/index.php/JVK>. 2017
