

Factors Affecting Community Knowledge Regarding Stunting in South Tangerang

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ABSTRACT

Background: Stunting is a condition of growth failure in children (body and brain growth) due to malnutrition for a long time. Thus, children are shorter than normal children of their age and have delayed thinking ability. Stunting remains a major public health problem in low and middle-income countries, including Indonesia. Stunting or shortness problems in toddlers show an average of 23.4%, with the lowest stunting prevalence area in South Tangerang City. **Aim:** This study was to determine factors affecting community knowledge regarding stunting in the South Tangerang. **Methods:** This research is observational and analytical study with a cross-sectional design. The statistical analysis was using the Slovin formula, with a total of 213 people. The research subject must be at least 15 years of age, literate, own a smartphone, and willing to participate in this survey. **Results:** Analysis shows that the relationship between knowledge about stunting and age has a p value of 0.020; the p value for education is 1.000; the p value for marriage is 0.746; the p value for information exposure in stunting is 1.000; and the p value for media information is 1.000. **Conclusion:** Age has a significant association with knowledge about stunting. Education, marriage, exposure to information about stunting, and media information are not predisposing factors related to knowledge about stunting. **Recommendation:** Education about stunting can start at an early age and last until old age. Education can be provided through counselling in schools or even by setting up a special nutritional preparation course to prevent stunting in adolescents, pregnant women, and even the elderly.

Keywords: Knowledge; Stunting; Community

INTRODUCTION

Stunting is a process that can affect a child's development from conception until the third or fourth year of life. Stunting is defined as a percentage of height for an age that is less than -2 standard deviations (SD) for a moderate category and less than 3 SD for a severe category of stunting based on median child growth standards. Similarly, children were considered severely stunted if their height was less than 3 SD below the median World Health Organization (WHO) child growth standard for the same age and sex (Soliman *et al.*, 2021).

Stunting is frequently overlooked in a society where short stature is common enough to be accepted. The difficulty in visually identifying stunted children and the lack of routine assessment of linear growth in primary health care explains why it took so long to appreciate the magnitude of this hidden problem (Onis *et al.*, 2019). According to the Indonesian Nutritional Status Survey 2021 results, the prevalence of stunting decreased from 27.7% in 2019 to 24.4%, or 5.33 million children under the age of five (Indonesia, 2021). Although the trend of stunting has decreased, it remains below the WHO recommendation of less than 20%. The percentage of stunting in Indonesia remains relatively high and deserves special attention (Indonesia, 2021).

The incidence of stunting in toddlers is inseparable from the involvement of internal and external factors. Many factors are associated with stunting. Several studies report on socioeconomic inequalities, geographic differences, dietary habits, education, child morbidity, infections, and the environment (Yushananta, Ahyanti, & Anggraini, 2022). In view of the future dangers of stunting, it is necessary to analyze the causes and ways of preventing stunting to anticipate reducing

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the prevalence of stunting in Indonesia. Therefore, preventing child stunting remains the main task of governments, as emphasized in Indonesia's Medium Development Goals for 2015-2019 and 2020-2024 (Mulyaningsih *et al.*, 2021).

Specifically, this study seeks to determine factors that affect community knowledge regarding stunting in the South Tangerang. It is important to conduct this study so that it can be a basic justification for handling stunting.

METHODOLOGY

This study was carried out using the cross-sectional method. The research subject is someone who is at least 15 years old, literate, owns a smartphone, and is willing to participate in this survey. The sample was calculated using the Slovin formula, with a total of 213 people. The subjects were randomly selected by computer and thereafter signed an informed consent form. This study received ethical clearance on July 22, 2022, with the number 097.K/KEPPKSTIKSC/VII/2022. Questionnaire links are distributed in the South Tangerang area. The data collection process was carried out for one month. Respondents were selected by a simple random technique using computerization and then selected with inclusion criteria: residents of the South Tangerang area and at least 15 years of age. Incomplete data were not selected as research samples. The questionnaire used was created by researchers with reference to information from the Indonesian Ministry of Health and UNICEF. The questionnaire asked about identity, characteristics, and 15 questions related to knowledge of stunting. So far, the Cronbach Alpha to reliability test and the Product Moment to validity test have been used to evaluate the questionnaire. Based on the analysis's findings, the reliability test stages were given a score of 0.833. Chi-Square and Fisher tests were used to code and analyze the data.

RESULTS

This study was conducted on 213 selected respondents who had filled out a questionnaire regarding characteristics and knowledge of stunting.

Table 1: Distribution Frequency of Characteristics and Knowledge about Stunting

Variable	Frequency	Percent
Age		
Late teens (17-25 years)	11	5.2
Early adulthood (26-35 years)	94	44.1
Late adulthood (36-45 years)	81	38.0
Early elderly (46-55 years)	27	12.7
Educational Level		
Primary-secondary	38	17.8
Collage	175	82.2
Marriage		
Never married	29	13.6
Married	184	86.4
Information Exposure in Stunting		
No	16	7.5
Yes	197	92.5
Media Information		
Never hear about stunting	16	7.5
Social media	140	65.7
Health services	57	26.8
Knowledge about Stunting		
Sufficient	21	9.9
Good	192	90.1

Based on Table 1, it is known that the early adult age group, which has a range between 26-35 years old, is the largest group participating in this study. The early adult category group was 44.1%. A small proportion of respondents are still classified as late teens (5.2%). Respondents who belong to the late teens' group, aged between 17-25 years old. This means that there is a possibility that respondents are <20 years old and are married or have children.

Table 1 shows that most of the respondents who took part in this study had a high level of education. The higher education referred to mentioned in this study is a minimum level of education of a diploma. 16.4% of respondents have secondary education and 1.4% of respondents have primary education. In Indonesia, the level of compulsory education that the population must comply with is 9 years of primary education. Secondary education is categorized as when someone undertakes and completes an education after primary education.

Almost all respondents are married (86.4%). The rest are unmarried people. 92.5 percent of respondents said they had heard of stunting. 7.5% of respondents said they had never heard of information concerning stunting. Most respondents who received information about stunting got it through social media (65.7%), and almost all the remaining 26.8% received information about stunting from health services.

The general description of stunting knowledge in this study showed that most (90.1%) respondents have good knowledge about stunting and the remaining 9.9% have sufficient knowledge of stunting.

Table 2: Relationship between Age, Education, Marriage, Information Exposure of Stunting, and Media Information with Knowledge about Stunting

Variable	Knowledge about stunting		Total n (%)	p value
	Sufficient n (%)	Good n (%)		
Age				
Teens-early adulthood (17-35 years old)	5 (4.8)	100 (95.2)	105 (100)	0.020*
Late adulthood -early elderly (36-55 years old)	16 (14.8)	92 (85.2)	108 (100)	
Education				
Primary-secondary	3 (7.9)	35 (92.1)	38 (100)	1.000
Collage	18 (10.3)	157 (89.7)	175 (100)	
Marriage				
Never married	2 (6.9)	27 (93.1)	29 (100)	0.746
Married	19 (10.3)	165 (89.7)	184 (100)	
Information Exposure in Stunting				
No	1 (6.3)	15 (93.8)	16 (100)	1.000
Yes	20 (10.2)	177 (89.8)	197 (100)	
Media Information				
Never hear about stunting	1 (6.3)	15 (93.8)	16 (100)	0.300
Social media	17 (12.1)	123 (87.9)	140 (100)	
Health services	3 (5.3)	54 (94.7)	57 (100)	

The analysis showed a relationship between age, education, marriage, information exposure in stunting, and media information with knowledge about stunting is chi-square and fisher’s test. Based on Table 2, it is known that in both age groups, most respondents have good knowledge about stunting. The relationship between age and knowledge of stunting has a value of $p = 0.020 < 0.05$, which means that age has a significant relationship with knowledge about stunting.

Most respondents with a higher level of education have good knowledge about stunting. The level of higher education in Indonesia includes several categories, including 9 years of primary education, starting from elementary school to junior

high school. Followed by secondary education, namely senior high school. The level of higher education starts with Diploma and goes up to Strata 3. The results of the bivariate analysis between education level and knowledge about stunting have a p -value of $1.000 > 0.05$, which means that there is no significant relationship between education level and knowledge about stunting.

Based on table 2, it is known that most of the married respondents have good knowledge about stunting, as well as the unmarried group. The result of the bivariate analysis showed that there was no significant relationship between marriage and knowledge about stunting (p -value = $0.746 > 0.05$). Most of the respondents who have been exposed to information about stunting have good knowledge. Interestingly, results from respondents who have never been exposed to information about stunting, most of them have good knowledge about stunting. The results of the analysis showed that there was no significant relationship between information exposure in stunting and knowledge (p -value = $1.000 > 0.05$).

Respondents have good knowledge about stunting, and most of them get information through social media. When compared between sources of information in obtaining knowledge about stunting, access to social media is greater than information obtained through health workers. The results of the analysis between information media and knowledge about stunting have a p -value of $0.300 > 0.05$, which means that there is no significant relationship between information media and knowledge about stunting.

DISCUSSION

The purpose of this study was to identify factors that influence community knowledge about stunting in South Tangerang. The assumption is that if someone is well acquainted with information about stunting, it is hoped that in the future, the parenting pattern can look for maximum growth and development to prevent stunting.

Knowledge is the result of the work and effort of a person in search of truth. A person involves all five senses when looking at an object. Knowledge is closely related to education. The level of education they have attained in their lifetime makes their thinking process more critical and skeptical. However, this does not mean that someone who does not have a high education cannot have comprehensive knowledge. Knowledge can be obtained through other sources of information such as experiences or information conveyed in mass media or social media (Adams, 2015; Laksono *et al.*, 2019).

Bloom proposes that the source of knowledge can be received through cognitive processes. The process involves several elements, including experience, reasoning, authority, intuition, revelation, and belief. These six elements can help someone understand a piece of information first (Adams, 2015; Darsini, Fahrurrozi, & Cahyono, 2019).

Age, gender, education, occupation, experience, source of information, motivation or interest, environment, and sociocultural context are a few variables that can affect knowledge (Darsini, Fahrurrozi, & Cahyono, 2019). Knowledge will affect attitudes to create behaviours that lead changes in a person's well-being and quality of life.

This study showed that only age had a significant relationship with knowledge about stunting. Four other variables have no significant relationship to knowledge about stunting. There is age, education, marriage, information exposure in stunting, and media information. This study is consistent with Agung Dwi Laksono's in 2019, which found that age, marital status, and educational attainment are significantly associated with knowledge (Alpian *et al.*, 2019; Laksono *et al.*, 2019).

In fact, the level of education affects the breadth of understanding related to knowledge. However, this was not established in the studies carried out. Most respondents have higher education, but the category of stunting knowledge in this study is still appropriate. As noted by Tyler, the higher the education of the mother or parents, the lower the risk of stunting in children (Vaivada *et al.*, 2020).

Age affects a person's reasoning and thought processes. Increasing age should increase experience and affect a person's level of knowledge. However, it cannot be denied that there are many other factors that affect a person's thinking power and thought process. Positive experiences, level of education, and the associated social and cultural environment also contribute to thinking power. Knowledge is not only acquired through formal education. Informal education can provide additional information to expand one's own knowledge. In this regard, it was found that most respondents had heard information about stunting. Most respondents who had heard about stunting information were obtained through

social media. This fact is interesting because the results of the analysis show that there is no significant association between exposure to stunting information and knowledge.

A survey conducted by the Katadata Insight Center (KIC) of 1,670 respondents in 34 provinces of Indonesia shows that 76% of the public uses social media to obtain knowledge and information on a topic. The results of the study are consistent with these findings: most respondents use social media to access information about stunting (Pusparisa, 2021). Social media is a medium for providing information that is easily accessible to the public. The development of science and technology also supports the dissemination of information through social media, using digital media as a means of sharing general information. The information found by the public on social media is not always valid; some information is disseminated to create negative opinions on a topic. The possibility of receiving untrustworthy or inappropriate information is also very high on social media and digital media. Certain keywords, authors, and social media sources when disseminating information require special attention in order for the public to receive valid information (Andreou & Nicolaidou, 2019).

An overview of the factors the incidence of stunting, including maternal or parental characteristics and environment, infants' inadequate nutritional intake, non-exclusive breastfeeding, and infectious diseases. In addition, there are other factors such as economic, sociocultural, and political elements, health practices, and environmental sanitation (Beal *et al.*, 2018).

In Indonesia, marital status has a close relationship with socio-cultural and traditional customs. The patrilineal culture in Indonesia creates a state in which the majority of decisions and influences in the family come from the male side. This makes it difficult for women to express their wishes and to have all family needs to be prioritized. This culture indirectly affects a person's level of reasoning about information (Beal *et al.*, 2018; Laksono *et al.*, 2019).

CONCLUSION

Based on the results of the research conducted, only age has a significant association with knowledge about stunting. This finding suggests that many direct factors dominantly influence knowledge about stunting; in this case, education, marriage, exposure to information on stunting, and media information are not predisposing factors related to knowledge about stunting.

Recommendation

Since age is closely related to knowledge about stunting, several strategies can be implemented based on the knowledge. Education about stunting can start at an early age and continue till old age. Education can be provided through counselling in schools or even by setting up a special nutritional preparation course to prevent stunting in adolescents, pregnant women, and even the elderly.

Conflict of Interest

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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REFERENCES

Adams, N. E. (2015). Bloom's Taxonomy of Cognitive Learning Objectives. *Journal of the Medical Library Association*, 103(3), 152-153. <https://doi.org/10.3163/1536-5050.103.3.010>

- Alpian, Y., Anggraeni, S. W., Wiharti, U., & Soleha, N. M. (2019). Pentingnya Pendidikan Bagi Manusia. *Journal Buana Pengabdian*, 1(1), 66-72. <https://doi.org/10.36805/jurnalbuanapengabdian.v1i1.581>
- Andreou, R., & Nicolaidou, L. (2019). *Digital Literacy in Social Media: A Case Study*. In ECEL 2019 18th European Conference on e-Learning. Academic Conferences and Publishing Limited. <https://doi.org/10.34190/EEL.19.025>
- Beal, T., Tumilowicz, A., Sutrisna, A., Izwardy, D., & Neufeld, L. M. (2018). A Review of Child Stunting Determinants in Indonesia. *Maternal Child Nutrition*, 14(4). <https://doi.org/10.1111/mcn.12617>
- Darsini, D., Fahrurrozi, F., & Cahyono, E. A. (2019). Pengetahuan; Artikel Review. *Journal Keperawatan*, 12(1), 13-13.
- De Onis, M., Borghi, E., Arimond, M., Webb, P., Croft, T., Saha, K., . . . & Flores-Ayala, R. (2019). Prevalence Thresholds for Wasting, Overweight and Stunting in Children Under 5 Years. *Public Health Nutrition*, 22(1), 175-179. <https://doi.org/10.1017/S1368980018002434>
- Indonesia, M. O. H. R. O. (2021). *Buku Saku Hasil Studi Status Gizi Indonesia (SSGI) Tingkat Nasional, Provinsi dan Kabupaten/Kota Tahun 2021*. Jakarta: Republic of Indonesia <https://www.litbang.kemkes.go.id/buku-saku-hasil-studi-status-gizi-indonesia-ssgi-tahun-2021/>
- Laksono, A. D., Ibad, M., Mursita, A., Kusri, I., & Wulandari, R. D. (2019). Characteristics of Mother as Predictors of Stunting in Toddler. *Pakistan Journal of Nutrition*, 18(12), 1101-1106. <https://doi.org/10.3923/pjn.2019.1101.1106>
- Mulyaningsih, T., Mohanty, I., Widyaningsih, V., Gebremedhin, T. A., Miranti, R., & Wiyono, V. H. (2021). Beyond Personal Factors: Multilevel Determinants of Childhood Stunting in Indonesia. *PLOS ONE*, 16(11). <https://doi.org/10.1371/journal.pone.0260265>
- Pusparisa, Y. (2021). Masyarakat Paling Banyak Mengakses Informasi dari Media Sosial. <https://databoks.katadata.co.id/datapublish/2020/11/23/masyarakat-paling-banyak-mengakses-informasi-dari-media-sosial>
- Soliman, A., De Sanctis, V., Alaaraj, N., Ahmed, S., Alfayei, F., Hamed, N., & Soliman, N. (2021). Early and Long-term Consequences of Nutritional Stunting: From Childhood to Adulthood. *Acta bio-medica : Atenei Parmensis*, 92(1). <https://doi.org/10.23750/abm.v92i1.11346>
- Vaivada, T., Akseer, N., Akseer, S., Somaskandan, A., Stefopoulos, M., & Bhutta, Z. A. (2020). Stunting in Childhood: an Overview of Global Burden, Trends, Determinants, and Drivers and Decline. *The American Journal of Clinical Nutrition*, 112, 777S-791S. <https://doi.org/10.1093/ajcn/nqaa159>
- Yushananta, P., Ahyanti, M., & Anggraini, Y. (2022). Risk Factors of Stunting in Children Aged 6-59 Months: A Case-Control Study in Horticulture Area. *Open Access Macedonian Journal of Medical Science*, 10(E), 1-5. doi:<https://doi.org/10.3889/oamjms.2022.7768>