

# Relationship Between The Level Of Knowledge And Attitude Towards Maternal Behavior Of Stunting Prevention At Bojong Nangka Community Health Center In Tangerang District

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## Abstract

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**Background:** Stunting is one of the major health problems in Indonesia. In 2022, the prevalence of stunting in Indonesia was 21.6%, and there were still 9,200 cases of stunting in Tangerang District alone. Stunting prevention can be done since pregnancy. It is estimated that stunting prevention behaviors among pregnant women is related to their knowledge and attitudes. Puskesmas Bojong Nangka was a community health center in Tangerang that treated stunting but has no data on this matter.

**Methods:** This study used a cross-sectional study design. Data on the level of knowledge, attitudes, and behaviors in stunting prevention was collected using questionnaires and further was analyzed using the Chi-square test.

**Result:** From 96 respondents, it was found that the majority (63.5%) had a good level of knowledge on stunting prevention. Most respondents also had a good attitude towards stunting prevention (83.3%). There were 72 respondents (75%) who had recommended stunting prevention behaviors. Bivariate analysis showed that there was a significant relationship between knowledge level and stunting prevention behaviors (P value < 0.001; OR 7.29; 95% CI 2.6 – 20.39) but there was no significant relationship between attitudes and stunting prevention behaviors (P value = 1; OR 1; 95% CI 0.29 – 3.45).

**Conclusions:** There was a significant relationship between the level of knowledge towards stunting prevention behaviors among pregnant women at Bojong Nangka Community Health Center, Tangerang District.

## Introduction

Stunting is a problem of impaired child growth and development due to chronic nutritional problems, characterized by height-for-age less than -2 standard deviations (SD) based on the World Health Organization (WHO) growth curve.<sup>1</sup>

Stunting can occur due to inadequate nutritional intake and chronic infections that take place in the first 1000 days of life.<sup>1</sup> Stunting causes several long-term impacts, namely: impaired physical growth, suboptimal cognitive and motor development, and even metabolic

disorders in adulthood such as diabetes, obesity, stroke, and heart disease.<sup>2</sup> Based on the results of the Indonesian Nutrition Status Survey in 2022, the prevalence of stunting in Indonesia is 21.6%.<sup>3</sup> The government's target is to reduce the stunting rate to 14% by 2024 based on the National Medium-Term Development Plan.<sup>4</sup>

Prevention of stunting can be done since pregnancy by providing adequate and high-quality nutrition to pregnant women.<sup>5</sup> Another prevention of stunting is that routine checks of pregnancy conditions can be carried out with a doctor to detect possible infections experienced in order to prevent or treat infections that cause stunting.<sup>6</sup>

Behavior is closely related to knowledge and attitudes.<sup>7</sup> According to Bloom, one of the main factors of behavior change can be influenced by knowledge, and followed by changes in attitude.<sup>8</sup> Based on previous research on the relationship between knowledge, attitudes of pregnant women towards stunting prevention behavior, there is a contradiction between the knowledge and behavior of pregnant women towards stunting prevention.<sup>9,10</sup> This can be caused by several factors such as economic conditions, availability of health facilities, support from family, friends and health workers.<sup>9</sup> This study was conducted at the Bojong Nangka Community Health Center located in Tangerang District, where there

were still 9,200 cases of stunting in 2022.<sup>11</sup> Therefore, this study reviewed the relationship between knowledge and attitudes of pregnant women towards stunting prevention behavior at Bojong Nangka Community Health Center.

### Objectives

The aim for this study is to know more about the maternal level of knowledge, and attitude towards stunting prevention behavior at Bojong Nangka Community Health Center in Tangerang District

### **Material And Methods**

#### Participants

The population in this study were pregnant women at the Bojong Nangka Community Health Center. There were 96 respondents who met the inclusion criteria which are: pregnant women who visited the Bojong Nangka Community Health Center during the study period and are residents of Tangerang District. The exclusion criteria in this study are: did not fill out the questionnaire completely and had difficulty to understand Indonesian language.

#### Study design

This study used cross-sectional design and was carried out from January to February 2024. It has received approval from the ethics committee of the Faculty of Medicine, Pelita Harapan University.

### Research Instrument

Data were collected using questionnaires about knowledge, attitudes, and practices of stunting prevention. There are some additional questions regarding the demographic data of the respondents (name, age, education, job).

### Statistical Analysis

Data was being analyzed using the Statistical Package for the Social Sciences version 26 (IBM, 2019). Chi-square test was used to determine the relationship between knowledge, attitude towards maternal stunting prevention with p-value < 0.05 as significance level.

## Result

### Respondent Characteristics

**Table 1.** Respondent Characteristics (N=96)

Respondent Characteristics	Number of Participants	Percentage (%)
<b>Age</b>		
<20 years	2	2.1%
20-35 years	84	87.5%
>35 years	10	10.4%
<b>Education</b>		
Elementary	7	7.3%
Middle School	28	29.2%
High School	47	49.0%
University	14	14.6%
<b>Job</b>		
Housewife	85	88.5%
Teacher	4	4.2%
Employee	6	6.3%
Midwife	1	1%
<b>Knowledge</b>		
Good	61	63.5%
Not good	35	36.5%
<b>Attitude</b>		
Good	80	83.3%
Not good	16	16.7%
<b>Behavior</b>		
Good	72	75%
Not good	24	25%
<b>ANC clinic</b>		
Aware	96	100%
Not aware	0	0%

<b>Health Counselling</b>		
Aware	96	100%
Not Aware	0	0%

There were 96 respondents who met all inclusion criteria for this study. The age demographics in this study were mostly in the age range of 20-35 years. The demographics of education in this study, most respondents have a final education of SMA / SMK with a total of 47 respondents (49%). In the demographics of the type of work of respondents in this study, most respondents were housewives with a total of 85 respondents (88.5%).

Most respondents had a good level of knowledge, namely 61 respondents (63.5%). and a good attitude towards stunting prevention, namely 80 respondents (83.3%). In the description of stunting prevention behavior, 72 respondents had good prevention behavior (75%). All pregnant women (96 respondents) also knew that there was a MCH clinic and health counseling at the Bojong Nangka Community Health Center (100%).

### Stunting Prevention Facilities

The results of this stunting prevention facilities and infrastructure questionnaire addressed to the Head of Puskesmas Bojong Nangka, showed that Puskesmas Bojong Nangka has several programs that support the implementation of stunting prevention. Puskesmas Bojong Nangka has a maternal and child health clinic for pregnancy checks, counseling on healthy

food for pregnant women, and counseling on infection prevention.

Statistical Test Result

**Table 2.** Analysis of the relationship between knowledge and stunting prevention (N=96)

Knowledge	Prevention Behavior		P value	Ratio (OR)	CI (95%)
	Good n (%)	Not good n (%)			
Good	54 (88,5%)	7 (11,5%)	0,00*	7,29	2,60-20,39
Not good	18 (51,4%)	17 (48,6%)			

\*significant

Based on the result on table 2, p value was <0.001. It showed that there was a significant relationship between the level of knowledge and stunting prevention behavior. The odds ratio (OR) value was 7.29; 95% CI 2.6 - 20.39. It can be concluded that someone with good knowledge has 7.29 times the odds of good stunting prevention behavior as well.

**Table 3.** Analysis of the relationship between Attitude and Stunting Prevention Behavior (N=96)

Attitude	Prevention Behavior		P value	Ratio (OR)	CI (95%)
	Good n (%)	Not good n (%)			
Good	60 (75 %)	20 (25%)	1	1	0,29-3,45
Not good	12 (75%)	4 (25%)			

\*not significant

Table 3 showed the chi square test result for relationship between attitude and stunting prevention behavior. The p value was > 0.05 thus there was no significant

relationship between attitude and stunting prevention behavior.

**Discussion**

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This study found there was a significant relationship between knowledge level and stunting prevention behavior (P value = 0.000; OR 7.29 CI 2.60 - 20.39). This result was in line with the results obtained by Lasarus et al. (2022) in Locus village, East Nusa Tenggara that showed there was significance between poor maternal knowledge and a high risk of stunting.<sup>12</sup> The study had 166 mothers-children aged 24–59-month dyads. Based on Bloom's theory, an action is carried out based on knowledge, and a person can be said to be knowledgeable when applying this knowledge based on the six levels of knowledge that apply.<sup>13</sup>

Good knowledge possessed by respondents in this study can be supported by accessibility to the Bojong Nangka Community Health Center, so that they get education from a team of medical officers from the Bojong Nangka Health Center. Accessibility also accompanied by educational support will likely increase a person in making prevention efforts, while people who lack health accessibility will cause ignorance and unconsciousness in stunting prevention efforts.<sup>14</sup>

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In this study, it was found that there was no significant relationship between the level of attitude and stunting prevention behavior (P value = 1; OR 1 CI 0.29 - 3.45). These results indicate that the behavior of pregnant women at the Bojong Nangka Puskesmas in preventing stunting is not influenced by their attitudes.

The results in this study are not in accordance with previous research, which in a study conducted by Arnita et al. (2020) showed that there was a significant relationship between attitudes and behavior to prevent stunting in toddlers at Puskesmas Simpang Kawat, Jambi City in 2019.<sup>10</sup> In this study there was no significant relationship between the attitudes of pregnant women and stunting prevention behavior. This can happen because behavior is not influenced by attitude alone, but knowledge also plays an important role. A person can be said to be knowledgeable if they apply what they know.

## References

1. Stunting in a nutshell [Internet]. [cited 2023 Sep 3]. Available from: <https://www.who.int/news/item/19-11-2015-stunting-in-a-nutshell>
2. Direktorat Jenderal Pelayanan Kesehatan: Mengenal Apa Itu Stunting... [Internet]. [cited 2023 Aug 23]. Available from: [https://yankes.kemkes.go.id/view\\_artikel/1388/mengenal-apa-itu-stunting](https://yankes.kemkes.go.id/view_artikel/1388/mengenal-apa-itu-stunting)

## Conclusion

The study concludes that most pregnant women at Bojong Nangka Health Center have good knowledge about stunting prevention (63.5%), while 36.5% have poor knowledge. Additionally, the majority of these women demonstrate a good attitude toward stunting prevention (80%). Furthermore, the findings reveal a significant relationship between knowledge and stunting prevention behavior in pregnant women, whereas no significant relationship is observed between attitude and stunting prevention behavior at Bojong Nangka Health Center.

## Limitation

This study was using cross-sectional method that cannot determine the existence of other confounding factors not examined in this study such as economic status, emotions, experience, and information from other media regarding stunting prevention which can affect the level of knowledge, attitudes, and stunting prevention behavior. The sample selection also has weaknesses where random sampling is not carried out.

3. Prevalensi Stunting di Indonesia Turun ke 21,6% dari 24,4% – Sehat Negeriku [Internet]. [cited 2023 Aug 23]. Available from: <https://sehatnegeriku.kemkes.go.id/baca/rilis-media/20230125/3142280/prevalensi-stunting-di-indonesia-turun-ke-216-dari-244/>
4. Turunkan Stunting di Angka 14 Persen di 2024, Menteri Suharso Dorong Kerja Sama Lintas Sektoral | Kementerian PPN/Bappenas [Internet]. [cited 2023 Aug 23]. Available from: <https://www.bappenas.go.id/id/berita/turunkan-stunting-di-angka-14-persen-di-2024-menteri-suharso-dorong-kerja-sama-lintas-sektoral>
5. Dewey KG. Reducing stunting by improving maternal, infant and young child nutrition in regions such as South Asia: evidence, challenges and opportunities. *Matern Child Nutr.* 2016 May;12(1):27–38. <https://doi.org/10.1111/mcn.12282>
6. Direktorat Jenderal Pelayanan Kesehatan Cegah Stunting Sejak dalam Masa Kehamilan [Internet]. [cited 2023 Aug 23]. Available from: [https://yankes.kemkes.go.id/view\\_artikel/1092/cegah-stunting-sejak-dalam-masa-kehamilan](https://yankes.kemkes.go.id/view_artikel/1092/cegah-stunting-sejak-dalam-masa-kehamilan)
7. Knowledge, Attitude, Then Behavior - Digital Respons-Ability [Internet]. [cited 2023 Sep 19]. Available from: <https://respons-ability.net/knowledge-attitude-behavior/>
8. Notoatmodjo S. Ilmu Perilaku Kesehatan. Jakarta: Rineka Cipta; 2010. 174 p.
9. Mutingah Z, Rokhaidah R. Hubungan Pengetahuan Dan Sikap Ibu Dengan Perilaku Pencegahan Stunting Pada Balita. *Jurnal Keperawatan Widya Gantari Indonesia.* 2021 Sep 27;5(2):49. <https://doi.org/10.52020/jkwgi.v5i2.3172>
10. Arnita S, Rahmadhani DY, Sari MT. Hubungan Pengetahuan dan Sikap Ibu dengan Upaya Pencegahan Stunting pada Balita di Wilayah Kerja Puskesmas Simpang Kawat Kota Jambi. *Jurnal Akademika Baiturrahim Jambi.* 2020 Mar 14;9(1):7. <https://doi.org/10.36565/jab.v9i1.149>
11. Dinas Komunikasi dan Informasi (Diskominfo) Kabupaten Tangerang. Kasus Stunting di Kabupaten Tangerang Turun dari 16.100 Jadi 9.200 Kasus [Internet]. 2023 [cited 2023 Sep 3]. Available from: <https://tangerangkab.go.id/detail-konten/show-berita/8004>
12. Atamou L, Rahmadiyah DC, Hassan H, Setiawan A. Analysis of the Determinants of Stunting among Children Aged below Five Years in Stunting Locus Villages in Indonesia. *Healthcare* 2023;11(6):810. <https://doi.org/10.3390/healthcare11060810>
13. Notoatmodjo S. Pendidikan dan Perilaku Kesehatan. Vol. 16. Jakarta : Rineka Cipta; 2003. 15–49 p.
14. Green LW. What can we generalize from research on patient education and clinical health promotion to physician counseling on diet? *Eur J Clin Nutr.* 1999;53 Suppl 2:s9–18. <https://doi.org/10.1038/sj.ejcn.1600795>

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A handwritten signature in black ink, appearing to read 'Dwi Savitri Rivami', with a small circled mark to the right of the signature.

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**(Dwi Savitri Rivami)**