

Original Article

The effect of counseling on parent's knowledge and attitudes towards stunting in toddlers: A quasi-experimental study

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Abstract

Stunting is a condition where toddlers are too short for their age. One of the preventions is by giving health education about stunting to the parents. The aim of the study is to determine the effect of counselling on parents' knowledge and attitudes towards stunting at Lhoknga Health Center, Aceh Besar. The study was conducted from November 7 to 23, 2022. This type of study was quasi-experimental with a one-group pre-test-post-test pre-experimental design. The participants were parents who were the main caregivers of toddlers in Lhoknga Health Center area, Aceh Besar. A total of 105 respondents were recruited for this study. In regards to knowledge about stunting, pre-counseling test showed that most respondents (71.5%) had sufficient knowledge while post-test showed that all respondents (100%) had good knowledge. Meanwhile, 92.4% respondents had good attitude towards stunting prior to the counseling, and increased to 100% after the education session. The Wilcoxon test showed an increased in the average knowledge score, from 12.83 during pre-test to 18.67 on post-test. An increased in the average attitude score was also found, from 72.05 to 92.77. Statistical analysis showed that there was an effect of counseling on increasing parents' knowledge ($p < 0.001$) and attitudes ($p < 0.001$) towards stunting. It can be concluded that counseling can increase parent's knowledge and attitudes towards stunting.

Keywords: Health education, knowledge, attitude, stunting, toddler

Introduction

Indonesia still faces child's nutritional problems that might cause serious impact on the quality of human resources (HR) in the future, such as failure to grow, low birth weight (LBW), small and thin children. In addition, malnutrition might also cause children to experience malnutrition in their later growth and low productivity as adults (Suriana, 2021). Stunting is a condition in which toddlers are short for their age, defined as having a height greater than minus two standard deviations from the WHO growth chart. Stunting in children under five is a chronic nutritional problem caused by many factors, such as Low Birth Weight (LBW), absent of exclusive breastfeeding, low socioeconomic status, poor maternal nutrition during pregnancy, childhood diseases, poor infant nutrition, and poor parental knowledge and attitudes. It is predicted that stunted children will have difficulty achieving optimal physical and mental development in the future (Kemenkes RI, 2018).

According to the World Bank Group Joint Malnutrition Estimates, UNICEF, WHO in 2020, around 144 million children were stunted worldwide. In the Asian continent alone, there were about 78.2 million stunted children in 2019, decreased from 136.6 million in 2000. (UNICEF, WHO, 2020). According to a data by the World Health Organization (WHO) in 2018, Indonesia ranked third as a country with the highest prevalence of stunted children under five (36.4%) in the South-East Asian Region after Timor Leste (50.5%) and India (38.4%). The prevalence of stunting in Indonesia was still above 20%, indicating that it had not reach the WHO target (below 20%) (Kemenkes RI, 2018).

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Basic Health Research Data (Riskesdas) in 2018 showed that the prevalence of stunting in Indonesia was 30,8%, decreased from 37,2% in 2013 (Pusat Data dan Informasi Kementerian Kesehatan RI, 2020). More than 50% of provinces in Indonesia had a stunting prevalence that exceeded the national figure. The five provinces with the highest stunting prevalence were East Nusa Tenggara (43.7%), West Sulawesi (39.3%), West Nusa Tenggara (36.8%), Gorontalo (35.1%) and Aceh (33.6%). Aceh was one of the provinces with high prevalence of stunted children. According to the nutritional status monitoring survey report in 2017, the stunting rate was 35.7% (Ramadhan R et.al, 2018). Five districts/cities in Aceh with prevalence of stunting above the provincial rate were the Aceh Jaya (44.0%), Aceh Tenggara (43.4%), Aceh Besar (42.9%), Aceh Utara (41.2%) and Aceh Tengah (41.0%). (Sudikno et.al, 2019). Data from the Lhoknga Health Center in Aceh Besar District, there were 102 children who were assessed as being stunted in 2021, where 92 children were classified as very short, and 10 children were classified as short.

Knowledge is information that humans obtain through intellectual observation to recognize an object or event that has never been seen or felt before (Yuliana, 2017). One of the indirect causative factors of stunting is parental knowledge. This condition can be caused because not so many parents know about stunting (Syabandini et.al, 2018). Another factor that causes stunting is the attitude of parents. A study suggested that malnutrition of children in the first 1000 days of life is caused by lack of knowledge and attitudes of families about good nutritional food intake for children. This condition is characterized by improper breastfeeding and inappropriate feeding patterns (Sari F et.al, 2018).

Lhoknga Health Center coverage area is one of the areas that has a high prevalence of stunted children in Aceh Besar region. Based on interviews with *puskesmas* health workers, education about stunting was still poor among parents and was constrained due to a shortage of health workers. One way to prevent stunting is to increase parents' knowledge and attitudes through education about stunting, so that they can participate in maintaining the health of children.

Methods

This is a cross sectional study employing a quasi-experimental design in one-group, by comparing pre- and post- counseling test to evaluate participants' knowledge and attitudes towards stunting. The study was conducted at Lhoknga Health Center, Aceh Besar District, from 7 to 23 November 2022. Parents who had children under five, were the main caregivers, resided in the working area of the Lhoknga Health Center (*Puskesmas*), had a KIA/KMS books (books to record child's development, could read and write, and was willing to take part in the research were recruited as study participants. Participants were chosen using simple random sampling technique. Univariate and bivariate analysis were performed utilizing the Wilcoxon test.

Results

Data collection was carried out from 7 to 23 November 2022 on parents who took their toddlers to *Posyandu* in Lampaya and Aneuk Paya Villages, Lhoknga, Aceh Besar District. In total, 105 respondents were recruited for the study. Demographic characteristics such as age, gender, occupation, and education were collected and presented in Table 1. Majority were female (87.7%), aged 26-35 years (83.9%), worked as housewives (79.1%), and were high school graduates (60.9%).

Table 1. Demographic characteristics of study respondents

Characteristics	Frequency (n=105)	Percentage (%)
Age (year)		
17-25	12	11.4
26-35	88	83.9
36-45	55	4.7
Gender		
Male	13	12.3
Female	92	87.7
Occupation		
Not Working/Housewife	83	79.1
Civil Servant/Retired	4	3.8
Farmer/Laborer	8	7.6
Entrepreneur/Merchant	10	9.5
Education		
Elementary school	2	2
Middle school	8	7.6
Highschool	64	60.9
DIII	14	13.4
Postgraduate	17	16.1

In regards to knowledge and attitude towards stunting, an increased in knowledge was seen after the counselling, from only 71.5% had a good knowledge before the counseling, to all subjects (100%) had good knowledge after the education session. The same results also shown for attitude, in which all respondents (100%) showed a good attitude after the counseling, from 92.4% before the counseling. (Table 2)

Table 2. Knowledge and attitude of respondents towards stunting before and after counseling

	Before stunting counselling		After stunting counselling	
	Frequency (n=105)	Percentage (%)	Frequency (n=105)	Percentage (%)
Knowledge				
Less	14	13.3	0	0.0
Sufficient	75	71.5	0	0.0
Good	16	15.2	105	100.0
Attitude				
Sufficient	97	92.4	0	0.0
Good	8	7.6	105	100.0

Similar pattern was also seen in the knowledge score before and after the counsesling. The median knowledge score before counseling was 11.5 but the median score after counseling was 18, or increased from 12.83 ± 2.07 to 18.67 ± 0.99 . For the attitude, the median score from the pre-test was 76 while the median score from the post-test was 93, with an average score of parents' attitudes towards stunting increased from 72.05 ± 3.40 to 92.77 ± 2.06 . (Table 3)

Table 3. Knowledge and attitude scores before and after the counseling

Variable	Median (Min-Max)	Mean $\pm$ SD
Knowledge		
Pre-test	11.5 (5-18)	12.83 ± 2.07
Post-test	18 (16-20)	18.67 ± 0.99
Attitude		
Pre-test	76 (65-87)	72.05 ± 3.40

Post-test	93 (87-99)	92.77±2.06
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Statistical analysis showed that there was a significant effect ($p<0.001$) of counseling on parental knowledge and attitude towards stunting. (Table 4)

Table 4. effects of stunting counseling on parents' knowledge and attitude

Variable	Median (Min-Max)	p-value
Knowledge		
Pre Test	11,5 (5-18)	<0.001
Post Test	18 (16-20)	
Attitude		
Pre Test	76 (65-87)	<0.001
Post Test	93 (87-99)	

Discussion

The results of this study showed that before being given counseling about stunting, 13.3% participants had less knowledge, 71.5% had sufficient knowledge, and 15.2% had good knowledge. However, after being given stunting counseling, the level of knowledge of parents in the good category (sufficient + good knowledge) showed an increase to 100%. Parent's knowledge about stunting can help improve the nutritional status of children and prevent stunting. Based on the results of this study, counseling could increase parental knowledge on stunting, as an effort to prevent stunting (Ramdhani et.al, 2022). The results of this study are in line with a study by Misrina et al (2021) that showed an increased in good knowledge about stunting among participants, where only 60% of participants had good knowledge prior to counseling to 78% participant with good knowledge after the counseling. Furthermore, the study also demonstrated a significant differences in the mother's knowledge on stunting before and after receiving counseling (Misrina et.al, 2021). Moreover, the results of this study is also supporting a study by Rosmiati et al (2020) that showed an increased of mother's knowledge about stunting after being given counseling, from 7.68 to 8.09 (Rosmiati et.al, 2020).

In regards to attitude towards stunting, this study showed that before being given counseling about stunting, 92.4% of the participants had sufficient attitude while 8 7.6% had a good attitude. However, after being given counseling, parents' attitudes in the good category increased to 100%. Parents' lack of understanding about stunting affects their ability to respond to stunting. Parental health behavior such as preference of fulfilling baby food without paying attention to its nutrition might were the proof of parental misunderstandings that might arose from misinformation. All these results in insufficient nutrition for the children, leads to nutritional problems including stunting (Dewi et.al, 2019). Health education is expected to increase knowledge and attitudes so that a person or group of people can change their attitude towards health. An increase in knowledge will affect the attitude of parents as an effort to prevent stunting (Notoatmodjo, 2014). The results of this study are in line with Andriani et al (2017) (Andriani et.al, 2017) and Suryagustina et al (2018) (Suryagustina et.al, 2018) that showed an improvement in parental attitude towards stunting after receiving counseling.

Statistical analysis showed that there was a significant effect of counseling on parental knowledge and attitude score towards stunting. Knowledge might increase after being given counseling as the participants sensed a certain object. Most human knowledge is obtained through the senses, particularly the eyes and ears (Wulandari, 2022). Counseling is an activity carried out with the principle of learning so that people gain knowledge and willingness to change, both to achieve the required standard of living

and to find ways to achieve this condition individually or collectively (Nurmala et.al, 2018).

The results of this study are in line with Hamimah (2019) which states that there was a significant effect ($p < 0.001$) of health counseling through video explainer media based on Sparkol Videoscribe on mother's knowledge about stunting (Hamimah, 2019). Moreover, the results of this study also supports a previous study by Kisman et al (2020) which showed that counseling using a simulation method has significant positive effect ($p = 0.001$) on mother's knowledge on stunting (Kisman et.al, 2020). This is also in line with a study by Diana et al (2020) which demonstrated significant differences ($p = 0.001$) in the mothers' knowledge on stunting before and after being given counseling through video media and leaflets (Diana et.al, 2020).

Based on the Wilcoxon test, this study showed a significant change ($p < 0.001$) on parental average attitude score, suggesting that there is an effect of counseling on parents' attitudes about stunting. The increase in parental attitudes in this study is in accordance with a study by Notoatmojo's (2014), which showed that knowledge played an important role for a person in determining their attitudes. An increase in knowledge is also supported by education and experience, which has an impact on determining attitudes towards what is done to the children as an effort to prevent stunting. And one effort to increase parental knowledge is through counseling (Notoatmodjo, 2014). The results of this study are also in with Mulyani et al (Mulyani et.al, 2022) and Juwita (Juwita. 2018) that showed a significant positive changes on parental attitudes towards. Stunting after receiving education session.

Conclusion

In conclusion, our study found that stunting counseling significantly improved parental knowledge and attitudes towards stunting. Therefore, it is very important to carry out more counseling session on stunting, targeting a wider population as an effort to prevent stunting as well as to reduce the number of stunted children in Indonesia, and Aceh in particular.

Authors' contributions

Conceptualization: CRAP, HH, NS, MM and HNH; Data curation: CRAP; Formal analysis: CRAP; Investigation: CRAP; Methodology: CRAP, HH, NS, MM and HNH; Project administration: HH; Resources: CRAP, HH, NS, MM and HNH; Supervision: HH, NS, MM and HNH; Validation: CRAP, HH, NS, MM and HNH; Writing-original draft preparation: CRAP, HH, NS, MM and HNH; Writing-review and editing: CRAP, HH, NS, MM and HNH.

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Conflict of interest

There is no conflict of interest was reported by the authors.

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