



Smart Card Stunting Media Influences Knowledge and Attitudes of Pregnant Women about Stunting Prevention

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Abstract:

Stunting is a condition when a child's height is less than the standard height for his age and is a problem of chronic malnutrition caused by insufficient nutritional intake for quite a long time. If pregnant women do not know the causes of stunting, especially nutritional adequacy in early pregnancy, it will have an impact on the attitude of pregnant women who do not apply good nutritional patterns during pregnancy. This can happen because when a child is stunted it disrupts his physical growth, immunity, and cognitive function. The purpose of this study was to determine the effect of education using the stunting smart card media on the knowledge and attitudes of pregnant women regarding stunting prevention in the work area of the Telaga Dewa Health Center, Bengkulu City. This research is a quantitative type of Pre-Experiment design with a one-group pre-test and post-test design. The sampling technique in this study was purposive sampling. The number of samples to be examined in this study were 30 first trimester pregnant women. The results showed that the average attitude score before intervention was negative, namely 28.63 and after education using a stunting smart card, a positive attitude was 37.70. The p value was obtained = $0.000 \leq 0.05$ using a confidence level of 95%, which means that there is an effect of the stunting smart card media on the knowledge and attitudes of pregnant women about stunting prevention in the work area of the Telaga Dewa Health Center, Bengkulu city.

Keywords: Attitude, Knowledge; Stunting; Stunting Smart Card

1. INTRODUCTION

World Health Organization (WHO 2018), states that nutrition is a very important component in the process of child growth and development (Hidayah et al., 2023; Munoz et al., 2020; Soliman et al., 2021). Malnutrition can affect a child's health status during a crisis period in child development. Problems with inadequate nutrition generally occur during pregnancy, causing children to be born with a body structure that is shorter than their age (stunting). These symptoms will only appear after the child is 2 years old (Sari et al., 2022; Suriati & Farisni, 2022; Syukur & Harismayanti, 2020).

Height/length for age less than -2 SD from the international reference median of the NCHS/WHO was considered stunting. Early onset and lifetime effects are experienced (Scheffler & Hermanussen, 2022; Tafesse et al., 2021). Reduced physical and cognitive development is the most prevalent sign of

stunting, and it can have detrimental long-term effects. In addition, low bone density, low productivity, delayed maturation, delayed brain development, poor academic performance, compromised immune system, poor cognitive development, lack of muscle strength, and lower labor capacity can all result from childhood stunting (Asif et al., 2022; Glick et al., 2021; Langlois et al., 2020).

Judging from SSGBI data (2019), the prevalence of stunting in Indonesia is 27.67% (Ayu et al., 2022; Buenita et al., 2023; Namangdjabar et al., 2022). Meanwhile, based on Riskesdas data (2018), the prevalence of stunting reached 30.8%. Based on this data, it can be said that stunting has decreased (Ginting et al., 2022; Setiawati et al., 2022). Even though it is decreasing, the prevalence of stunting is still above the WHO minimum standard, namely less than 20%. Data from the Indonesian Ministry of Health (2020), the prevalence of stunting in Bengkulu Province reached 26.86%. Data from the Bengkulu City Health Service in 2020, it was found that 30.3% of children under five in Bengkulu City experienced stunting and the most commonly found in the Telaga Dewa Community Health Center was 47.6% of children under five were stunted.

Knowledge is one of the factors that influences a person's health behavior. If someone has sufficient knowledge in health, they are expected to be able to behave in good health too. Meanwhile, attitude is a

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tendency to carry out actions or behavior. Attitudes related to stunting prevention include efforts made by pregnant women to improve nutrition in children from the time of pregnancy. It is hoped that good maternal knowledge about stunting since pregnancy can increase positive attitudes and behavior to prevent stunting (Mulyanti et al., 2023; Novianti & Saida, 2023; Sarliana & Admasari, 2022).

This research will examine the influence of the Stunting Smart Card media on the knowledge and attitudes of pregnant women regarding stunting prevention. This research will be carried out at the Telaga Dewa Community Health Center, Bengkulu City because data from the Bengkulu City Health Service (2020), shows that the Telaga Dewa Community Health Center has the highest stunting rate when compared to other community health centers, namely 47.6% of children experience stunting. This research uses the Stunting Smart Card media to deliver educational messages on stunting prevention to pregnant women.

Results from previous research by Astuti et al. (2020), it was found that almost all pregnant women stated that the media in the form of Integrating Cards was very effective in increasing knowledge about stunting for interesting reasons. Learning to understand stunting is easier with pictures and explanations. This card is an information medium that interacts with communication so that individuals can socialize and create harmonious relationships between individuals and groups.

2. MATERIAL AND METHOD

This kind of study uses a pre-experimental design and is quantitative in nature. One Group Pretest-Posttest Design is the study methodology that was employed. The study was carried out between January and June

of 2022. With a total of 357 pregnant women in the UPTD work area of the Telaga Dewa Health Center in Bengkulu City, the population of this study consisted of 30 respondents who were selected by purposive sampling. Primary and secondary data were used to acquire data. Researchers used a questionnaire to interview respondents to gather primary data, while they indirectly obtained secondary data from library resources, the Indonesian Ministry of Health, the Bengkulu City Health Service, and the Telaga Dewa Community Health Center in Bengkulu City. The instrument in this research uses a questionnaire in the form of structured questions/statements that have been validated and reliable. The questionnaire used consists of two parts, namely containing demographic data and questions/statements to determine the respondent's knowledge.

3. RESULT AND DISCUSSION

Univariate and bivariate analyses were performed to ascertain the frequency distribution of each research variable prior to and following the intervention, as well as to examine the impact of the Stunting Smart Card media on knowledge and attitudes before and during the intervention. The results of each analysis are as follows:

1) Univariate Analysis

Univariate analysis was used to determine the frequency distribution of each research variable, namely the average results of knowledge and attitudes before and after the intervention in the UPTD work area of the Telaga Dewa Health Center, Bengkulu City, as follows:

a) Characteristic overview

Table 1. Respondent Characteristics

No	Variable	F	Percentage
1.	Age		
	20 - 23 Years	12	40%
	24 - 30 Years	18	60%
	Amount	30	100%
2.	Education		
	Junior High School	4	13.3%
	Senior High School	23	76.7%
	S1	3	10%
	Amount	30	100%
3.	Work		
	Housewife/Not Working	20	66.7%
	Trader	5	16.7%
	Private sector employee	2	6.7%
	Civil servants	2	6.7%
	Honorary	1	3.3%
	Amount	30	100%

Based on table 1, the results show that most of the respondents were aged 24-30 years (60%), almost all of the respondents had a high school education (76.7%) and the majority (66.7%) of the respondents were domestic workers/not working.

b) *Knowledge of pregnant women before and after being given a stunting smart card*

Table 2. Average Knowledge of Pregnant Women Before and After Being Given Stunting Smart Card Media

Variable	Mean±SD	Min – Max	CI 95%
Knowledge			
Before	5.77±1.431	3 - 9	5.23
After	8.47 ± 1.074	7 - 10	8.07

Table 2 Interpretation of the average knowledge score before being given education using the stunting smart card, the level of knowledge was in the sufficient category, namely 5.77 and after being given education using the stunting smart card, the level of

knowledge increased to the good category, namely 8.47.

c) *The attitude of pregnant women before and after being given the stunting smart card media*

Table 3. Average Attitudes of Pregnant Women Before and After Being Given Stunting Smart Card Media

Variable	Mean±SD	Min – Max	CI 95%
Attitude			
Before	28.63 ± 2.173	24 - 32	27.82
After	37.70 ± 1.055	35 - 39	37.31

Based on table 3, the interpretation of the mean attitude score before education using the stunting smart card was negative, namely 28.63 and after education using the stunting smart card, the attitude was positive, 37.70.

This analysis was carried out to see the effect of the Stunting Smart Card media on knowledge and attitudes before and after the intervention was given. After carrying out a normality test using Kolmogorov, it was found that the data was not normally distributed, so a statistical test was carried out using the Wilcoxon test.

2) Bivariate Analysis

Table 4. The Influence of Stunting Smart Card Media on the Knowledge and Attitudes of Pregnant Women Regarding Stunting Prevention in Pregnant Women in the UPTD Working Area of the Telaga Dewa Community Health Center, Bengkulu City

Variable	Before	After	ΔMean	P Value
	Mean±SD	Mean±		
Knowledge	5.77±1.431	8.47 ± 1.074	2.7	0,000
Attitude	28.63 ± 2.173	37.70 ± 1,055	9.07	0,000

Based on the data from the three tables, it was determined that, at a 95% confidence level, the p value = 0.000 ≤ 0.05 indicates that pregnant women's knowledge and attitudes about stunting prevention in the Uptd Puskesmas Telaga Dewa, Bengkulu City work area are influenced by stunting smart card media.

the ones used in this study. Future studies could include expectant mothers from remote locations, such as pregnant women from mountainous regions who work as farmers every day.

The findings of this study offer a different approach to addressing the issue of pregnant women's lack of awareness and attitudes toward stunting prevention. It is possible to do similar research in the future by including respondents from backgrounds other than

4. CONCLUSION

The following conclusions can be made based on the goals of the study and the data collected from the impact of education using the Stunting Smart Card media on pregnant women's knowledge and attitudes regarding stunting prevention in the UPTD work area of the Telaga Dewa Community Health Center, Bengkulu City: 1) The characteristics of pregnant

women in the Telaga Dewa Community Health Center UPTD working area are mostly aged 24 – 30 years. The respondents' education was almost all high school and the respondents' occupation was almost all housewives (IRT). 2)The knowledge of pregnant women in the UPTD Puskesmas Telaga Dewa working area regarding stunting prevention has increased, which can be seen from the knowledge of pregnant women before and after being given education using the Stunting Smart Card media. Before being given education, most pregnant women had little knowledge about preventing stunting and after being given education using the Stunting Smart Card media, almost all pregnant women knew that preventing stunting starts during pregnancy.3)The attitude of pregnant women in the Telaga Dewa Community Health Center UPTD working area regarding stunting prevention after being given education using the Stunting Smart Card media has improved, which can be seen from pregnant women starting to pay attention to the intake they consume every day.4)There is a mean difference knowledge and attitudes of pregnant women who have been given education using the Stunting Smart Card media regarding stunting prevention.

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