# **PROCEEDING**

5<sup>th</sup> International Conference of Health Polytechnic of Jambi 2025 icon@poltekkesjambi.ac.id http://journal.poltekkesjambi.ac.id/index.php/ICoHPJ doi.org/10.35910/icohpj.v5i0



# THE INFLUENCE OF THE SNAKES AND LADDERS GAME ON PREGNANT WOMEN'S KNOWLEDGE ABOUT STUNTING PREVENTION IN BETUNG ISLAND VILLAGE

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#### ABSTRACT

**Background:** The World Health Organization (WHO) reports that the largest proportion of stunted toddlers comes from Asia, namely 58.7%. The results of the 2022 Indonesian Nutrition Status Survey (SSGI) show that 21.6% of toddlers are stunted in Indonesia. Stunting can cause stunted physical growth, mental development and health status in children. The impact of stunting can occur due to malnutrition during the first 1000 days of life (HPK). This research aims to determine the effect of playing snakes and ladders on pregnant women's knowledge about stunting prevention in Pulau Betung Village.

**Method:** Pre-experimental research method with one group pre test post test design. The population of pregnant women in Pulau Betung Village is 30 people. The sampling technique used was total sampling. The research was conducted from November to April 2023 using the Wilcoxon analysis test.

**Result:** The research results showed that all respondents experienced an increase in knowledge after playing snakes and ladders with a mean ranking of 15 and a p value of 0.000. The average knowledge of respondents before playing was 13.9. After playing snakes and ladders it increased to 17.7.

**Conclusion:** Statistically, it can be interpreted that stunting snakes and ladders influence pregnant women's knowledge about stunting prevention in Pulau Betung Village.

**Keywords:** Snakes and Ladders game, pregnant women, knowledge, stunting

# INTRODUCTION

Stunting is still a problem in Indonesia, including in Jambi Province. Based on the Indonesian Nutrition Status Report (SSGI), the prevalence of children under five years of age (toddlers) who experience stunting in Jambi Province is 22.4% in 2021 (Jambi Provincial Health Office, 2018:2).

Stunting in children is the impact of nutritional deficiencies during the first thousand days of life. This causes irreversible disruption to the child's physical development, resulting in a decline in the child's cognitive and motor skills and mental development (Hajijah, 2022:317). Stunting in toddlers needs special attention because it can cause delays in physical growth, mental development and health status in children. Recent studies show that children

experiencing stunting are associated with poor school performance, low levels of education and low income as adults. Stunting conditions cause poor cognitive abilities, low productivity, and increased risk of disease resulting in long-term losses for the Indonesian economy (Setiawan et al, 2018:3).

Efforts to increase pregnant women's knowledge about stunting prevention are very necessary, considering that stunting will affect the child's intelligence level and health status as an adult. The consequences of malnutrition at 1000 HPK are permanent and difficult to repair (Paramashanti, Astria. 2021:81).

Counseling for pregnant women in pregnant women's classes is provided in order to increase knowledge about stunting and reduce stunting rates. The information that parents have received about stunting must be

digested and remembered by parents so that stunting prevention can be carried out (Rahmawati et al, 2019). Stunting can be prevented by improving the nutrition of pregnant women and by improving child rearing patterns (Pakpahan, 2021:246).

The role of health workers, especially midwives, is required to be able to provide MCH/KB services and women's health throughout their life cycle, both curative, preventive and promotive. One promotive effort that midwives can take to increase pregnant women's knowledge about preventing stunting is by implementing the snakes and ladders game in pregnant women's classes. The snakes and ladders game as a health promotion medium is an effective tool in providing information and is able to increase knowledge and attitudes (Widianti Lisda, 2020:3).

According to research conducted by Mulianigsih (2021:2), the snakes and ladders stunting game is an effective and fun way to provide health education to pregnant women. This game is a health education media created by the Ministry of Health of the Republic of Indonesia as an effort to prevent stunting in children. The process of receiving information using the snakes and ladders game will have a high intensity in perceiving information. When pregnant women play snakes and ladders, the senses used besides the eyes are the ears. All five senses are pathways for receiving information to the brain. The more senses used to convey information, the more information will be received and stored.

The prevalence of stunted toddlers in Batanghari district is 24.5%. One of the community health centers in Batanghari district is the Selat Community Health Center with reports of TB/U (short toddlers) weighing 40 people out of 1,063 toddlers with a percentage of 3.5%, which is a phenomenon that can lead to stunting (Batanghari Jambi Health Service, 2021:2). Betung Island Village is one of the working areas of the Selat Health Center which has a high incidence of stunting. Of the 40

stunted toddlers in the 8 working areas of the Selat Community Health Center, 7 people (17.5%) came from Pulau Betung Village.

Based on an initial survey conducted by researchers in November 2022 at the Selat Community Health Center using the FGD (focus group discussion) method during pregnancy class activities, it was found that out of 6 mothers there were 2 people (33%) who could mention preventing stunting and 4 people (Another 67%) do not know anything about preventing stunting, they have the principle that it is important to be healthy and rarely get sick and think that short children are hereditary.

Based on the above phenomenon, researchers will conduct research on the influence of the snakes and ladders game on pregnant women's knowledge about stunting prevention in Pulau Betung Village in 2023.

#### **METHODS**

The research method used in this research is pre-experiment with a One Group Pretest Posttest research design. The population of all pregnant women in Betung Island Village, Pemayung District, Batanghari Regency is 30 people. The sampling technique used was total sampling. The instrument used in this research was a validated questionnaire, to measure respondents' knowledge about stunting prevention before and after playing snakes and ladders. Data were analyzed using the Wilcoxon test.

The snakes and ladders used contain material regarding efforts to prevent stunting in accordance with Presidential Decree No. 42 of 2013. The snakes and ladders are the work of researchers which are made as interesting as possible so that respondents can more easily understand the information presented.

# RESULTS AND DISCUSSION

## **RESULTS**

# 1. Univariate Analysis

Table 1. Pretest Statistical Results

Knowledge	Amount	%
Good	8	26,7%
Enough	17	56,7%
Not Enough	5	16,7%
Total	30	100.0%

Table 2. Posttest Statistical Results

Knowledge	Amount	%
Good	28	93.3%
Enough	2	6,7%
Total	30	100.0%

# 2. Bivariate Analysis

# a. Data Normality Results

**Table 3.** Normality Test Results

Variable	Mean	Test re	sult
Pretest	0,029	Abnorm	al
Post Test	0,039	Abnorr	nal
b. Wilcoxor	1 Test	Analysis	of
Knowled	ge		

**Tabel 4.** Analysis of the Wilcoxon Test of Knowledge

Variable	Mean	Test result
Pretest	13,90	Abnormal
Post Test	17,73	Abnormal

## **DISCUSSION**

Based on the results of this research, the majority of respondents had sufficient knowledge before playing stunting snakes and ladders. Respondents have insufficient knowledge because so far respondents have not received adequate information. This can be seen from the majority of respondents answering incorrectly on questions about frequency of prenatal check-ups with health workers, reasons for the importance of MP-ASI for babies after 6 months of age, and how to prevent stunting during pregnancy.

These results are in line with the results of research by Ika Sulistiyawati (2021:4), showing that some respondents had poor average knowledge about stunting prevention before intervention using snakes and ladders media, then their knowledge increased after being

given intervention using stunting snakes and ladders media.

Based on the results of this research, before playing snakes and ladders, most respondents knew examples of clean and healthy living behavior such as washing their hands with soap and running water before eating, after defecating, after urinating and after traveling. However, only a small proportion of respondents knew about the frequency of pregnancy checks from health workers. This is because most respondents do not know the minimum standard for pregnancy frequency of 6 times (2 times at T1, 1 time at T2, and 2 times at T3). Respondents did not usually count the number of visits to health workers.

Stunting is a problem faced by Indonesian toddlers, including in Jambi Province, which is currently a priority for the government. Stunting in children is the impact of nutritional deficiencies during the first thousand days of life (1000 HPK). This causes irreversible disruption to the child's physical development, causing a decrease in cognitive and motor skills as well as a decrease in work performance (Setiawan et al, 2018:3). Therefore, stunting in toddlers needs special attention in preventing it. Stunting prevention can be done with appropriate health promotion methods.

The snakes and ladders game is a method of health promotion in small groups (Indunianingsih, 2021:39) which aims to provide information and be able to improve knowledge and attitudes (Sari, 2019:3).

According to Notoatmodjo (2018:44) knowledge is the result of knowing, which occurs after someone senses something. Someone who is exposed to information about a particular topic will have better knowledge than someone who is not exposed to information, as well as information about stunting prevention which is given to respondents through snakes and ladders media.

Mulianingsih (2021:6) in his research also stated that the snakes and ladders game has a high intensity in perceiving information. When

pregnant women play snakes and ladders, the senses used besides the eyes are the ears. All five senses are pathways for receiving information to the brain. The more senses used to convey information, the more information will be received and stored.

Pregnant women need to get information in the right way about preventing stunting so that pregnant women know what they should do and what they should avoid to prevent stunting, so that it can be applied in everyday life.

#### **CONCLUSION**

Pregnant Women's Knowledge About Stunting Prevention in Pulau Betung Village, Pemayung District, Batanghari Regency in 2023, before playing snakes and ladders, most respondents had sufficient knowledge with an average score of 13.9. Meanwhile, after playing snakes and ladders, most respondents had good category knowledge with an average score of 17.7. There is an influence of the Snakes and Ladders Game on Pregnant Women's Knowledge about Stunting Prevention in Pulau Betung Village, Pemayung District, Batanghari Regency in 2023. Suggestions were conveyed to the community health center and Pulau Betung village officials to carry out further education efforts using snakes and ladders stunting.

## CONFLICT OF INTEREST

There is no conflict of interest in this manuscript.

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