THE EFFECT OF THE HEALTH PROMOTION MODEL (HPM) ON MOTHERS' KNOWLEDGE LEVELS ABOUT STUNTING IN THE SOMBA OPU HEALTH CENTER'S WORKING AREA

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Abstract

Background: Stunting is a chronic nutritional problem caused by inadequate nutrient intake over a prolonged period due to the provision of food that does not meet dietary needs. One cause is the need for mothers' knowledge about stunting, as the current health promotion model media has not been effective in increasing mothers' knowledge. **Aim:** To determine the effect of the health promotion model (HPM) on the level of mothers' knowledge about stunting in the Somba Opu Health Center's working area. **Method:** The type of research used is quantitative, with a pre-experimental design approach through a one-group pretest-posttest design. The sample size is 40 people, and the sampling technique used in this study is purposive sampling. Data measurement tools include questionnaires and leaflets. **Results:** Analysis using the Wilcoxon test yielded a p-value of 0.000, less than 0.05. Thus, Ha is accepted. There is a significant effect before and after implementing the health promotion model (HPM) in the Somba Opu Health Center's working area. **Conclusion:** The health promotion model (HPM) affects mothers' knowledge about stunting in the Somba Opu Health Center's working area.

Keywords *: Health Promotion Model,Knowledge stunting, leaflet*

BACKGROUND

Stunting is a chronic nutritional problem caused by inadequate nutrient intake over a prolonged Period due to the provision of food that does not meet dietary needs. Stunting is a condition of impaired growth in children due to chronic malnutrition from ages 0-59 months, characterized by a height-for-age index (H/A) with a Z-Score of less than -2 SD, resulting in a child's height not being appropriate for their age (Sari et al., 2020)

The global prevalence of stunting in children under 5 years old is 21.3%. This indicates that in 2019, approximately 144 million children under 5 years old suffered from stunting, with about two- thirds of them living in Africa and Southeast Asia (WHO, 2020) Recent data show that Asia faces a significant burden of malnutrition in children under 5 years old, with a stunting prevalence of 21.8%, higher than the global average of 21.3%. Southeast Asia has a stunting prevalence of 24.7%, making it the region with the second-highest prevalence in Asia after South Asia (Global Nutrition Report, 2020)

Indonesia is one of the developing countries currently facing nutritional problems that can hinder the growth and development of young children. One of the most common dietary issues is stunting.

In Indonesia, the prevalent nutritional issue is stunting. In 2021, the Ministry of Health, in collaboration with the Central Statistics Agency (BPS) and with support from the Stunting Prevention Acceleration Team of the Vice President's Secretariat of the Republic of Indonesia, conducted the Indonesian Nutritional Status Study (SSGI). This study revealed a yearly national stunting rate decrease of 1.6 percent, from 27.7 percent in 2019 to 24.4 percent in 2021. Currently, Indonesia's stunting prevalence is better compared to Myanmar (35%) but still higher than Vietnam (23%), Malaysia (17%), Thailand (16%), and Singapore (4%).

According to the e-PPGBM (Electronic Community-Based Nutrition Recording and Reporting)data, as of August 2021, the stunting rate in South Sulawesi reached 9.08 percent. This figure exceeds the central government's target of reducing the stunting rate to 14 percent by 2024 (Mediakom, 2021) In 2019, the stunting rate in South Sulawesi was 30.6%, and it decreased to 27.4% in 2021. The Head of the South Sulawesi Health Office stated that this figure is still far from the 2022 target of 21.59%, and the current stunting rate in South Sulawesi remains higher than the national average of 24.4%. Oneof the efforts to accelerate the reduction of stunting rates in South Sulawesi includes designating 240 focus locations (locus) for the year, with each district/city having 10 focus locations (South Sulawesi Health Office, 2021)

One of the priority health development programs for 2020-2024 is reducing stunting prevalence. Efforts to improve nutrition in the community, including reducing stunting prevalence, are among the national development priorities outlined in the National Medium-Term Development Plan (RPJMN) for 2020-2024. The target for reducing stunting prevalence is 14% (Ministry of Health, 2020)

The South Sulawesi Provincial Government has taken steps to converge efforts on stunting by mandating the Provincial and Regency/City Development Planning Agency as coordinators to implement the GamGamma'Naogram (Community Movement to Eradicate Stunting). The implementation of the GamGamma'Naogram follows the issuance of Circular Letter No. 441.1/988/Diskes regarding the prevention and mitigation of stunting in South Sulawesi Province (Regional Office of DPJPB South Sulawesi Province, 2020). This program aims to reduce stunting in South Sulawesi to 14% by 2025. The method targets priority groups by placing nutrition support workers and nutrition counselors as facilitators (Head of Public Health, South Sulawesi Provincial Health Office, 2020). The main target groups are adolescent girls, pregnant women, infants aged 0-5 years, toddlers aged 6-23 months, and other families/targets, with a focus on families that are less fortunate and have low educational levels (Regional Office of DJPB South Sulawesi Province).

To address the causes of stunting, healthcare workers implement two types of

interventions: specific interventions and sensitive interventions. Specific interventions directly address the causes of stunting, such as food intake, infection prevention, maternal nutritional status, infectious diseases, and environmental health. On the other hand, sensitive interventions are activities related to indirect causes that are generally outside health issues. Sensitive interventions are divided into four types: provision of drinking water and sanitation, nutrition and health services, raising awareness of parenting and nutrition, and improving access to nutritious food (Scaling Up Nutrition Indonesia, 2020).

Lack of knowledge, poor understanding of good eating habits, and insufficient awareness aboutstunting influence a mother's attitudes and behaviors in providing food for her child, including the appropriate types and amounts needed for optimal growth and development. The higher a mother's knowledge about stunting and health, the better the evaluation of food. Conversely, in families with low knowledge, children often eat without meeting their nutritional needs (Hasnawati et al., 2021)

Health education plays an important role in directly providing information to mothers through effective interactions until they understand how to prevent stunting. The Health Promotion Model (HPM) method used in this research involves educating mothers using printed media, such as leaflets, to provide information and strategies for preventing stunting through nutritional improvements (Sukmawati et al., 2021)

Leaflet media is one of the educational tools commonly used today due to its effective creation, relative ease, and comprehensibility by health educators. This aligns with previous research, including a study by Kasman et al., which found a difference in the impact of health education through video and leaflet media. The advantage of leaflets is that the messages can be studied according to each (RPJMN) for 2020-2024. The target for reducing stunting prevalence is 14% (Ministry of Health, recipient's needs, interests, and pace. Additionally, they can be reviewed at any time and taken anywhere (Kasman et al., 2017)

Therefore, to enhance the knowledge and awareness of mothers, it is necessary to implement the Health Promotion Model or health education regarding the prevention of stunting. It is hoped that after providing health education on stunting prevention to mothers, their knowledge will increase, which will help reduce stunting rates.

From the available data, the total number of stunting cases at Somba Opu Health Center for the stunting (short) category was 68 in 2020. This number increased to 285 in 2021. However, in 2022, thestunting rate decreased to 207 children, only to rise again in 2023

Therefore, based on the above description, the researcher aims to conduct a study at Somba Opu Health Center in Gowa Regency, Makassar City, titled "The Effect of the Health Promotion Model (HPM) on Mothers' Knowledge Levels About Stunting." Before collecting initial data, I conducted a preliminary survey at the research site and found issues or phenomena relevant to my research topic. Additionally, the field data I obtained supports this study.

METHODS

This research employs a quantitative approach, using a Pre-Experimental method with a one- group pre-test and post-test design. This design reveals causal relationships by involving a single groupof subjects. The subjects are observed before the intervention is conducted and then followed again after the intervention is provided (Nursalam, 2017)

The research design used is the One-Group Pre-Test and Post-test design, which involves a single measurement before the intervention (pre-test) and another measurement after the intervention (post-test).

RESULTS AND DISCUSSION

This research was conducted from August 15 to September 22, 2023, at Somba Opu Health Center, with 40 respondents who met the inclusion and exclusion criteria. It is a quasi-experimental study using a One-Group Pre-Test and Post-test design. The sampling method used is purposive sampling. Data were collected using a questionnaire.

After data collection, the data will be processed to assess the impact of the Health Promotion Model on mothers' knowledge about stunting in the Somba Opu Health Center area. The analysis will include univariate analysis this will present each variable as frequency distributions. Bivariate Analysis: This will determine the relationship between independent and dependent variables, employing the Shapiro-Wilk test for normality.

1. Data Characteristics

a. Distribution of Respondent Age

Table 1. Frequency Distribution Based on Age of Respondents in the Somba Opu Health Center Area

Age	F	%
Late Adolescence (17-25 years)	9	22,5
Early Adulthood (26-35 years)	23	57,5
Late Adulthood (36-45 years)	8	20,00
Total	40	100,0

Source: Primary Data 2023

Table 1 shows that out of 40 respondents, the largest age category is Early Adulthood (26-35 years), with 23 respondents (57.5%), while the smallest category is Late Adulthood (36-45 years), with 8 respondents (20.0%).

b. Distribution of Respondents' Educational Background

Table 2. Frequency Distribution Based on Respondents' Education in the Work Area ofSomba Opu Health Center

Education	**F**	**%**
Elementary School	1	2,5
Junior High School	5	12,5
Senior High School	23	57,5
Bachelor's Degree	9	22,5
Master's Degree	2	5,0
Total	40	100,0

Source: Primary Data 2023

Based on Table 2, it shows that out of 40 respondents, the education category is dominated by Senior High School (SMA) with 23 respondents (57.5%), while the lowest is Elementary School (SD) with 1 respondent (2.5%).

c. Distribution of Respondents' Occupations

Table 3. Frequency Distribution Based on Respondents' Occupations in the Work Area of Somba Opu Health Center

Occupation	F	%
Housewife	33	82,5
Employee	2	5,0
Temporary staff	2	5,0
Civil Servant	1	2,5
Lecturer	2	5.0
Total	40	100,0

Source: Primary Data 2023

Based on Table 3. it shows that out of 40 respondents, the highest occupation distribution is housewife (IRT) with 33 respondents (82.5%), while the lowest is civil servant (PNS) with 1 respondent (2.5%).

Table 4. Frequency Distribution Based on Number of Parities in the Work Area ofSomba Opu Health Center

Parity	Frekuensi	%
Primipara	8	20,0
Multipara	32	80,0
Total	40	100,0

Source: Primary Data 2023

Based on Table 4. above, it shows that out of 40 respondents, the highest distribution of parity is multipara with 32 individuals (80.0%), while the lowest is primipara with 8 individuals (20.0%).

2. Univariate Analysis

a. Maternal Knowledge Before Receiving the Health Promotion Model (HPM) with Leaflet

Table 5. Maternal Knowledge Before Receiving the Health Promotion Model (HPM)with Leaflet in the Work Area of Somba Opu Health Center

Maternal Knowledge	Pre-test	
	Frekuensi	Presentase
Good	1	2,5 %
Fairly Good	27	67,5 %
Poor	12	30,0 %
Total	40	100 ,%

Source: Primary Data 2023

Based on Table 4.7 above, it shows that out of 40 respondents, the maternal knowledge level before receiving the Health Promotion Model (HPM) with the leaflet was mostly fairly good, with 27 respondents (67.5%), while the highest level of knowledge was good, with 1 respondent (2.5%).

b. Maternal Knowledge After Receiving the Health Promotion Model (HPM) withLeaflet

Table 6. Maternal Knowledge After Receiving the Health Promotion Model (HPM) with Leaflet in the Work Area of Somba Opu Health Center

Maternal Knowledge	Post –test	
	Frekuensi	Presentase
Good	37	92,5 %
Fairly Good	3	7,5 %
Total	40	100 %

Source: Primary Data 2023

Table 6. shows that out of 40 respondents, after being given the Health Promotion Model (HPM) with the leaflet, the majority of mothers had a good level of knowledge, with 37 respondents (92.5%), while the lowest level of knowledge was fairly good, with 3 respondents (7.5%).

3. Bivariate Analysis

After conducting a normality test using the Shapiro-Wilk test, a significance value of 0.000 was obtained, indicating that the data distribution was abnormal. Therefore, a non-parametric statistical test using the Wilcoxon test was performed.

Table 4.9 The Influence of the Health Promotion Model (HPM) on Maternal Knowledge About Stunting in the Work Area of Somba Opu Health Center

	Good		**Fairly Good**		**Poor**		**Total**	
	n		n	%	n	%	n	%
Pre test	1	2,5	27	67,5	12	30,0	40	100
Post test	37	92,5	3	7,5	-	-	40	100

Uji *Wilcoxon* p=0,05

Based on Table 4.9 above shows that out of 40 respondents, before being given the Health Promotion Model (HPM) with the leaflet, 1 person (2.5%) had good knowledge, 27 people (67.5%) had fairly good knowledge, and 12 people (30.0%) had poor knowledge. After receiving the Health Promotion Model (HPM) with the leaflet, 37 people (92.5%) had good knowledge, and 3 people (7.5%) had fairly good knowledge.

Statistical analysis using the Wilcoxon test resulted in a p-value of 0.000 < 0.05, indicating that there is a significant effect of the Health Promotion Model (HPM) with the leaflet on the level of maternal knowledge about stunting in the work area of Somba Opu Health Center.

The research results show that the majority of respondents are aged 26-35 years, who are in the early adulthood category and have mature experience and knowledge. This is in line with previous studies which indicate that early adulthood often has a better level of maturity in thinking and experience. This knowledge and experience influences the way they handle problems, including when it comes to child care. This research also found that the majority of respondents had a high school education, which contributed to their ability to process information. It is hoped that higher education can increase understanding and skills in caring for education is closely related to the ability to absorb and understand health information.

The results of data analysis show that the mother's knowledge before giving the health promotion model (HPM), namely the mother's knowledge in the good category is 1 respondent, 27 respondents are quite good and 12 respondents are not good and the mother's knowledge

after giving the health promotion model (HPM) is that it is known that the mother's knowledge As many as 37 respondents were in the good and quite good categories, namely 3 respondents. This shows that there was an influence before and after providing the health promotion model (HPM) with leaflets. As the results of the data analysis test using the Wilcoxon test, it was found that the p value was 0.000 < 0.05, meaning that there was an influence before and after giving the health promotion model (HPM) on the level of knowledge of mothers regarding stunting in the Somba Opu Community Health Center working area, so the statistical hypothesis (Ho) was rejected. and the alternative hypothesis (Ha) is accepted.

CONCLUSION

Based on the research conducted from August 15 to September 20 in the Somba Opu Health Center's work area, it can be concluded that the Health Promotion Model influences the level of maternal knowledge about stunting in this area.

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