THE EFFECT OF GROUP GUIDANCE WITH THE MIND MAPPING METHOD ON INCREASING THE KNOWLEDGE OF FERTILE AGE COUPLES IN EFFORTS TO PREVENT STUNTING

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Abstract: Stunting is a chronic nutritional problem that is a public health challenge in Indonesia, especially in children under five years of age. Stunting prevention needs to be started early, especially in fertile couples, who have an important role in preparing the health conditions of mothers and children. This study aims to analyze the effect of group guidance with the mind mapping method on increasing the knowledge of fertile couples in preventing stunting. The research method used was a quasi-experiment with one group pretest-posttest design using a control group. The subjects of the study consisted of 34 fertile couples selected by purposive sampling. The intervention group was given group guidance using the mind mapping method, while the control group was given conventional guidance. Knowledge measurements were carried out before and after the intervention using a structured questionnaire. Data analysis used the Wilcoxon test. The results showed that there was a significant increase in the knowledge of fertile couples regarding stunting prevention in the intervention group compared to the control group. A better understanding of the importance of nutritional intake, health care during pregnancy, and newborn health management indicates this increase in knowledge. Group guidance with the mind mapping method has proven effective in helping participants organize information visually and improve their memory. Thus, this method can be recommended as an innovative educational approach in efforts to prevent stunting.

Keywords: group guidance, mind mapping, knowledge, fertile age couples, stunting prevention.

INTRODUCTION

The major nutritional problem in toddlers in Indonesia is stunting. Stunting in toddlers is currently a major concern for the government and society in the context of nutritional problems. According to WHO (World Health Organization) 2020, stunting is a state of malnutrition characterized by a decrease in the rate of growth in body length or height in the overall growth and development process determined by a height Z-score of less than -2 SD (standard deviation). Short toddlers (stunting) can be identified if a toddler's length or height has been measured, then compared to the standard, and the results are below normal.(Tang et al., 2022)

The incidence or prevalence of stunting in the world is still high, especially in poor and developing countries. Based on stunting incidence datain 2019 reached 21.3% or around 144.0 million children in the world who experienced stunting. The Asian continent is the highest continent with a stunting incidence of 54%. Meanwhile, Southeast Asia is in second place after South Asia, with a prevalence of stunting in toddlers of 24.7% (UNICEF et al., 2020). Indonesia is included in the country with the third highest prevalence in the Southeast Asia region with a prevalence of 36.4% after Tomor Leste 50.2%, and India 38.4% (WHO, 2018 in the Stunting Bulletin, 2018). Based on the results of the Indonesian nutritional status survey (SSGI) in 2022, Central Java Province entered a province that was still relatively high with a prevalence of 20.8%. In the Central Java region, Kudus Regency is the second district with the highest prevalence of stunting after Tegal Regency with a prevalence of 15.8% (SSGI, 2022).

Stunting not only impacts the quality of life of children in the future, but also reduces economic potential and increases the risk of various non-communicable diseases. Preventing stunting is very important to be done early, including before pregnancy. Fertile couples (FAP) have a central role in preventing stunting through good pregnancy planning, adequate nutritional intake, and understanding of optimal health care for mothers and children. However, various studies show that FAP knowledge regarding stunting prevention is still relatively low. Therefore, effective interventions are needed to improve their knowledge.(Shrestha et al., 2022).

Kudus Regency consists of 9 Districts, Kaliwungu District, Kota District, Jati District, Undaan District, Menjobo District, Jekulo District, Bae District, Gebog District, and Dawe District. The number of stunting in Kudus City was 3601 with a prevalence of 5.85%, 3 regions have the highest prevalence of stunting, namely Dawe District at 13.32%, Undaan District at 11.13%, Gebog District at 10.66%. Based on the data report from the Kudus City Health Office in 2022, the most stunting was in Dawe District, and from data reports at 19 Health Centers in Kudus Regency, there were 238 stunted toddlers with comorbidities including diarrhea, ARI (Acute Respiratory Tract Infection), Pneumonia and (TB)

Pulmonary Tuberculosis. (Dinkes Kab Kudus, 2022). Based on the results of previous research by Indriana (2019), several factors that cause stunting in Kudus Regency include a history of maternal pregnancy complications of eclampsia and preeclampsia 1.8%, Pregnancy Anemia 26%, Low Birth Weight (LBW) 22%, History of chronic diseases 14%, Tuberculosis in Children 13%, History of Diarrhea 47%, toddler growth and development disorders 26% and worms 33%.

The Kudus district government in this case is the Kudus District Health Office has handled the handling of stunting/malnutrition problems including the STBM (Community-Based Total Sanitation) Program, PHBS (Clean and Healthy Living Behavior), and Posyandu which focuses on stunting problems, Implementation of nutrition houses with food fortification and Provision of additional food (PMT) to toddlers. However, these efforts have not succeeded in reducing stunting rates and have not succeeded in improving the health status of stunted toddlers. Therefore, it is necessary to take several actions that can reduce the incidence of stunting in Kudus Regency. Especially actions that are focused on prospective pregnant women, namely couples of fertile age.

Couples of childbearing age (PUS) are an important group that has the responsibility to prepare for healthy pregnancy conditions and ensure adequate nutritional intake for pregnant women and their unborn babies. Lack of knowledge about the importance of nutrition during pregnancy and after childbirth can be a major contributing factor to high stunting rates.(Himawati & Susanti, 2022). Good knowledge in fertile age couples regarding stunting prevention is expected to reduce the risk of stunting through improving nutritional intake, proper pregnancy planning, and implementing appropriate parenting patterns (Narti, 2023).

One approach that can be used in increasing knowledge is through group guidance. Group guidance is a method that involves the active participation of participants to share information and experiences in a discussion forum. This method is considered effective in increasing understanding and awareness because interaction between group members can encourage deeper learning.(Setiani & Sriwiyati, 2022). Group counseling is one of the effective methods to increase individual knowledge and awareness about a particular topic. Group counseling involves structured discussions among group members guided by a facilitator. Through interaction between members, participants can share experiences and gain new insights, which will influence changes in attitudes and behavior.

In the context of health education, group counseling is effective in increasing participants' knowledge of a variety of health issues, including disease prevention. Group counseling provides an interactive atmosphere and allows members to be more involved in the learning process, in contrast to the more one-way lecture method. In addition, the group atmosphere encourages a sense of togetherness and mutual support, so that participants are more motivated to practice what they have learned.(Setiani & Sriwiyati, 2022)

In addition, the use of mind mapping methods in group guidance can further strengthen the learning process. Mind mapping is a visualization technique that helps individuals organize information in a more structured way, making it easier to understand and retain material. Mind mapping is a visualization method used to organize information in a more systematic way. This technique was first introduced by Tony Buzan in the 1970s and has since been widely adopted in various fields, including education. Mind mapping allows users to create graphical representations of information in the form of connected branches from the main idea, making it easier to understand and remember information.

In the context of learning, mind mapping makes it easier for individuals to summarize and understand complex information. With this method, students can see the relationship between concepts and visualize ideas more clearly. Previous research has shown that mind mapping is effective in improving understanding and retention of material on various subjects, including the health sector.

The use of mind mapping in group guidance aims to help participants organize information related to stunting prevention in a more structured and easy-to-understand way. This technique also provides a more interactive and collaborative learning experience.

This study aims to analyze the effect of group guidance with the mind mapping method on increasing the knowledge of fertile couples in preventing stunting. Through this study, it is expected to find empirical evidence about the effectiveness of this method in increasing the knowledge of PUS regarding the importance of preventing stunting, so that it can contribute to efforts to reduce stunting rates in the community.

METHOD

This study uses a quantitative approach in the form of a pre-experimental with a one group pre and post-test design type. In this design, the researcher collected data to determine the level of subject understanding of stunting prevention twice, namely before the experiment or pre-test and after the experiment which is usually called the post-test. The subjects of this study were fertile age couples (PUS) totaling 34 married couples in Kudus Regency. The sampling technique used purposive sampling. The criteria for research subjects include: 1) PUS whose wives are 18-49 years old; 2) residents vulnerable to stunting in Kudus Regency, Central Java; 3) getting low scores on the pretest results.

The technique used in data collection is using a closed questionnaire in the form of a google form with a Likert scale. The number of items provided in the questionnaire is 30 items. The questionnaire grid is in the form of an understanding of stunting. Symptoms of stunting and prevention

of stunting. The data analysis technique uses a non-parametric statistical test through Wilcoxon to determine the increase in understanding of stunting as an effort to prevent the prevalence of stunting through group guidance with the mind mapping method in fertile age couples (PUS) in Kudus Regency, Central Java.

RESULTS AND DISCUSSION

Based on the data in descriptive statistics from each data group including pre-test data and post-test data, it is known that the mean or average post-test score of the research subjects is 92.05. This score is greater than the mean or average pre-test score of the research subjects, which is 74.25. (the results of the analysis can be seen in table 1). To find out whether the difference is statistically significant or not, the Wilcoxon test is then carried out.

Table 1. Descriptive statistics Descriptive Statistics

N		Mean	Std. Deviation	Min	Max
Pretest	34	74.25	17,528	45	99
Posttest	34	92.05	12,324	67	106

Based on the results of the Wilcoxon test, it is known that 34 data are showing an increase, with an average increase of 9.30. Negative rank shows a score of 0, which means that the post-test score is not lower than the pre-test score. While the positive rank which shows a post-test score higher than the pre-test score is 18, so it can be interpreted that 18 research subjects have a post-test score higher than the pre-test score. While the test score is 2, which means that 2 research subjects have the same pre-test score as their post-test score. Based on the presentation of the results of the data analysis, it means that in general PUS who receive Group Guidance with the Mind Mapping Method have a higher/better understanding of stunting. The complete calculation data can be seen in table 2.

Table 2. Wilcoxon Ranks Test Results

		N	Mean Rank	Sum of Rank
Posttest-Pretest	Negative Ranks	0a	,00	,00
	Positive Ranks	18b	9.50	171.00
	Ties	2c		
	Total	34		

a. Posttest < Pretest
b. Posttest > Pretest
c. Posttest = Pretest

Further data analysis to determine the difference between the pretest and posttest results showed a Z score of -3.725 with a significance level of 0.000 (p<0.05). The calculation results can be seen in Table 3.

Table 3. Results of Z score calculation

Test Statistics	
	Posttest - Pretest
Z	-3,725b
Asymp. Sig. (2-tailed)	,000

a. Wilcoxon signed ranks test
b. Based on negative ratings.

Based on the calculation results, it can be seen that there is a significant difference between the pretest and posttest results, meaning that the understanding of fertile couples about stunting before being given group guidance through the mind mapping method is significantly different when compared to after being given group guidance through the mind mapping method. Thus, it can be concluded that mind mapping carried out in a group guidance setting can be used as a preventive effort for stunting prevalence.

Mind mapping that has been given to fertile couples is done in a group guidance service setting.(Ginting & Tinambunan, 2022). The procedure for holding mind mapping includes the opening stage, transition stage, core stage, mind mapping and closing. In more detail, the implementation is carried out as follows:

1). Opening Stage; The opening stage is carried out by opening the activity, expressing gratitude for the participants' presence, praying, explaining the stages of the activity to be carried out along with the goals to be achieved. 2). Transitional Stage; At this stage, the group leader asks the participants' readiness to participate in the activity. If the participants are ready, the group leader distributes the materials and displays the prepared mind mapping. 3). Core Stage; At this stage, the group leader presents the prepared discussion topic, explains the importance of the topic to be discussed, discusses the topic and allows participants to ask questions. 4). Mind Mapping; The mind mapping stage is adjusted to each program that will be implemented. 5). Final Stage; At this stage the group leader confirms the group members' commitment to the plan that will be carried out regarding the topic that has been discussed and asks for messages and impressions from participants about the

activities that have taken place. Furthermore, the activity will be ended and schedule the next program and convey gratitude and close with a prayer.

Mind mapping is carried out in stages and consists of 3 programs. The first program is given to PUS in the form of information related to stunting. The purpose of providing this information is to provide an understanding of the nature, symptoms and efforts to prevent stunting. Activities carried out in this program: The group coordinator shuffles the prepared picture cards, the group coordinator divides participants into 3 groups, The group coordinator invites participants to take a picture card. The group coordinator directs all participants who have taken the card to place it on the mind mapping board according to the correct position, Participants who succeed in attaching the picture card correctly are given a reward, Discussion and deepening of mind mapping material according to the results of the participants' work(Tembang et al., 2018).

After the PUS has an understanding of the nature, symptoms and prevention efforts for stunting, mind mapping is continued to the second program. The second mind mapping program contains information about clean and healthy living patterns and behavior. The purpose of providing this information is so that the PUS has an understanding of the importance of implementing a clean and healthy living pattern and the role of parenting patterns in the child's development stage. In the second program, complementary foods are prepared that meet and do not meet the requirements for balanced nutrition for babies. In the implementation of mind mapping, the PUS is involved in distinguishing and choosing the types of healthy complementary foods that are needed by children to support their growth process. Material about clean and healthy living patterns and good parenting patterns are also prepared in mind mapping, the PUS is involved in distinguishing and choosing good and healthy living patterns and parenting patterns.

The third program is in the form of presenting case examples and a list of questions about the material that has been mastered in programs one and two. PUS is involved in responding and answering questions related to stunting cases so that they can play a role in resolving the case. Understanding stunting is needed by PUS because PUS has a great opportunity to enter the period of pregnancy and childcare. Preparation of PUS in understanding stunting is an important aspect that needs attention, because to overcome preventing stunting in toddlers requires very good care in the first thousand days of care (1000 HPK). The First 1000 Days of Life start from the beginning of the conception period (during 270 days of pregnancy) to 730 days after the child is born (children aged 2 years). 1000 HPK is the main foundation of human life in the future (BKKBN Public Relations, 2018). Thus it can be concluded that if PUS already understands well about preventing stunting, then when entering pregnancy they can implement a healthy lifestyle and provide good care to children after birth.

The final result that can be achieved from this series of processes is that the prevalence of stunting can decrease.

CONCLUSION

Health is one of the problems that occur in every country, including Indonesia. One of the health problems that occurs in Indonesia is stunting. Stunting is a condition of growth failure characterized by a problem of height that is not comparable to normal growth according to the child's age as a result of inadequate nutrition during pregnancy and early growth caused by the mother's lack of knowledge about clean and healthy living behavior and wrong parenting patterns. The prevalence of stunting in Indonesia is still in the high category, because it is still above the threshold set by WHO.

Efforts to reduce stunting prevalence need to involve cross-sectors. Mind mapping conducted in a group guidance setting is one method that can be done to improve understanding of stunting in PUS, because mind mapping can provide insight and knowledge, both in the form of theory and practice that discuss stunting. Ultimately, the mind mapping method has a direct and indirect impact on preventive efforts against stunting incidents.

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