



## THE EFFECTIVENESS OF PARTICIPATORY LEARNING AND ACTION METHOD IN INCREASING KNOWLEDGE IN STUNTING PREVENTION AMONG MOTHERS

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### ABSTRACT

**Background:** Stunting is a condition where a baby or toddler experiences chronic malnutrition which has an impact on the child's low height. Participatory Learning Approach (PLA) is an alternative learning model that is used to increase the active participation of participants. This study aims to determine the effect of the Participatory Learning Approach (PLA) method in increasing mothers' knowledge in stunting prevention. **Methods:** The design of this study was quasi-experimental, with a pre and post test approach with a control group design. Respondents to this study were 50 mothers and prospective mothers who were divided into the intervention group (n=27) and the control group (n=23). The sampling technique used is convenience sampling. Respondents were invited to take part in a one-day learning program called Stunting Awareness Day (3S). In the 3S program, the intervention group was given health education using the PLA method, while the control group was given the traditional lecture method. This questionnaire is used to measure respondents' knowledge of stunting prevention before learning (pretest) and after learning (posttest). The data obtained were analyzed using paired t test and independent t test. **Results:** The results of this study showed that there was a significant difference between participatory learning methods and traditional approaches in increasing mothers' knowledge about stunting prevention ( $p = 0.002 \leq 0.05$ ), the increase in knowledge in the intervention group was more significant than the control group. **Conclusions:** The PLA and lecture learning methods can be used to increase respondents' knowledge in stunting prevention.

**Keywords:** Knowledge, Participatory Learning and Action, Stunting

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### INTRODUCTION

One of the health problems that has become the focus of the government's attention is stunting. Stunting is a condition where a baby or toddler experiences chronic malnutrition which has an impact on the child's low height. The 2018 Basic Health Research results show that the incidence of stunting in Indonesia is at 37.2% (Firdausya & Hardini, 2020). Stunting cases are almost spread throughout Indonesia. Based on the

data obtained, 1/3 of toddlers in Indonesia are below the average height. Conditions like this will certainly give effect to the productivity of children in the future. The main reasons for the world slowdown are poor economic conditions, lack of availability of food and nutrition as well as other social and health problems (Hutasoit et al., 2020).

The Indonesian Ministry of Villages and Human Resources found that multidimensional factors causing slowed



growth include poor diet and poor health services for pregnant women such as prenatal and postpartum care. It can be seen that these two factors come from mothers' ignorance about stunting prevention and the lack of quality early childhood education for pregnant women (Handayani et al., 2022). Limited knowledge of the mother affects daily attitudes towards family nutrition. Based on the research, it was found that the mother's low level of knowledge would affect parenting patterns of poor nutrition towards preventing stunting (Hutasoit et al., 2020). This poor parenting practice or model is reflected in behavior that pays little attention to personal health during pregnancy, does not eat nutritious food, does not provide exclusive breastfeeding from 0-6 months, mistakes in selecting food menus or providing additional food is not given to children (Saville et al., 2018). This information forms the basis for making decisions and raising awareness about slowdown prevention. Other research related to the relationship between mother's education and children's nutritional status shows that a high level of mother's education tends to improve children's nutritional status. Mothers who are highly educated have a high level of knowledge about child care for stunting prevention (Gope et al., 2019).

The level of mother's knowledge about nutrition has an important role in creating a balanced nutritional diet for children. Mother's education level will be very influential in serving nutritionally balanced and quality food (Handayani et al., 2022). Educated mothers will certainly try to be able to practice providing good nutrition for children. One of the studies on the application of nutrition to children stated that there was a significant relationship between the level of education and the nutritional care pattern practiced by the mother. Research by Kapadia et al., (2022) shows that the level of knowledge

is also a factor that can influence the success of parenting practices, but the value is not as big as the level of education. Efforts to increase mothers' knowledge about nutrition have been carried out, including activities to provide health education at integrated health care centre or other health facilities. In addition to these efforts, increasing science and technology is also part of efforts to educate nutrition, where current technology that contains information related to health and nutrition can be accessed very easily by mothers or expectant mothers. However, based on this research the results obtained have not been maximized, where there is no strong evidence in increasing knowledge and awareness. Besides that, the learning process is carried out unilaterally without any feedback and direct involvement from students, so that the results obtained are not optimal. To increase the ability and awareness of mothers in preventing stunting, an appropriate and measurable learning method is needed

Participatory Learning and Action (PLA) or participatory learning method is an alternative learning model that can be used to increase the level of participation. This method emphasizes the active participation of participants. With this method, the interactive atmosphere can be improved. In addition, this method can be applied to different subjects and different maturity levels (Darmawan & Rosmilawati, 2020). Based on various studies, the use of participatory techniques increases satisfaction, high interest in learning subjects, efficiency and learning outcomes. However, these results depend heavily on the pedagogic ability of the facilitator in applying student directions and motivation in learning activities (Sinha et al., 2018). Another study on the effect of participation in learning techniques found that learning outcomes can be improved by applying this method.



Besides that, in the field of health education this method is an important part of the effectiveness of health programs (Tasic et al., 2020). This study aims to determine the effect of the Participatory Learning and Action (PLA) method in increasing mothers' knowledge in stunting prevention.

## METHODS

The research design is quasi-experimental, with a pre and approach post test with control group design. The research was conducted from March to August 2022 with mothers and prospective mothers. The number of respondents in this study were 50 people, divided into the intervention group (n=27) and the control group (n=23). The sampling technique used is convenience sampling by inviting and including respondents to follow a one-day learning program called Stunting Aware Day (3S). In the 3S program, the intervention group was given the

opportunity to hold discussions, presentations and demonstrate again in small groups. While the control group lectured as usual. The instrument for measuring the respondent's knowledge was a questionnaire containing multiple choice questions about stunting and nutritional care for mothers. This MCQ question is used to measure the respondent's knowledge before learning (pretest) and after learning (posttest). The author made as many as 30 MCQ questions that had been given input from a nutritionist for the suitability of the context and form of the questions. The collected data were analyzed by paired t-test and independent t-test.

## RESULTS

From the results of a study conducted in March-August 2022 on 50 mothers and prospective mothers, the following results were obtained.

**Table 1.** Characteristics of Respondents

| Characteristics of respondents | Treatment Group |      | Control Group |      |
|--------------------------------|-----------------|------|---------------|------|
|                                | n               | %    | n             | %    |
| <b>Education</b>               |                 |      |               |      |
| Elementary school              | 8               | 29,6 | 8             | 34,8 |
| Junior high school             | 4               | 14,8 | 4             | 17,4 |
| Senior high school             | 12              | 44,4 | 11            | 47,8 |
| College                        | 3               | 11,1 |               |      |
| <b>Job</b>                     |                 |      |               |      |
| Not Yet/ Not Working           | 5               | 18,5 | 7             | 30,4 |
| Housewife                      | 15              | 55,6 | 1             | 4,3  |
| Farmer                         | 3               | 11,1 | 5             | 21,7 |
| civil servant                  | 3               | 11,1 | 10            | 43,5 |
| Self-employed                  | 1               | 3,7  | 0             | 0    |
| <b>Marital status</b>          |                 |      |               |      |
| Marry                          | 20              | 74,1 | 17            | 73,9 |
| Not married yet                | 7               | 25,9 | 5             | 21,7 |
| Widow                          | 0               | 0    | 1             | 4,3  |

Based on table 1, it was concluded that most of them had high school

education, namely 12 people (44.4%) in the intervention group and 11 people



(47.8%) from the control group. Most of the respondents' occupations were housewives, namely 15 people (55.6%) in the intervention group and 1 person (4.3%) from the control group. Most of the

respondents were married, namely 20 people (74.1%) in the intervention group and 17 people (73.9%) from the control group.

**Table 2.** Analysis of the Participatory Learning and Action technique in the intervention group and Lectures in the control group

| Group        | Stunting Knowledge |             | difference | p      |
|--------------|--------------------|-------------|------------|--------|
|              | Pre test           | post test   |            |        |
|              | mean±SD            | mean±SD     |            |        |
| Intervention | 12,59±2,763        | 15,43±1,727 | 2,84       | 0,001* |
| Control      | 13,27±3,223        | 14,47±2,651 | 1,2        | 0,002* |

The table 2 shows that the knowledge of respondents in both groups has increased. In the intervention group, the difference in mean pre-test and post-test scores was 2.84, while in the control group it was 1.2. This shows that the

increase in scores in the intervention group is more significant than the control group. The PLA method and lectures statistically significantly affected the increase in respondents' knowledge ( $p < 0.05$ ).

*Table 3. Analysis of the Effect of Participatory Learning and Action Techniques on Respondents' Knowledge*

| Knowledge                     | Group        |             | p      |
|-------------------------------|--------------|-------------|--------|
|                               | Intervention | Control     |        |
|                               | Mean±SD      | Mean±SD     |        |
| <i>Pre Test</i>               | 12,59±2,763  | 13,27±3,223 | 0,001* |
| <i>Post Test</i>              | 15,43±1,727  | 14,47±2,651 | 0,002* |
| <i>Mean pre dan post test</i> |              |             | 0,002  |

Table 3 shows that there is a significant difference between participatory learning methods and traditional approaches in increasing mothers' knowledge about stunting prevention ( $p = 0.002 < 0.05$ ).

## DISCUSSION

The results of this study indicate that there is a significant difference between participatory learning methods and traditional approaches in increasing mothers' knowledge about stunting prevention. Respondents' knowledge about stunting prevention after the Participatory Learning and Action (PLA) was carried out experienced a more significant increase compared to the control group.

PLA is a learning method that combines several methods or learning models with the aim of increasing the participation of learning participants. In order to maximize the level of participation and assimilation of information, mothers get lessons that combine lecture techniques, interactive discussions and demonstrations. According to Darmawan et al. (2020) the PLA method is able to encourage collective learning in society. These results reinforce the results of previous research that the combination of Lecture, Brainstorming and Demonstration (CBD) methods can increase respondents' knowledge in preventing stunting (Kadiyala et al., 2021). The results of research by Arbarini et al., (2018) also



stated that community motivation and competence increased after being given a participatory learning model.

The PLA method is able to increase the respondent's knowledge because this learning model requires the active participation of mothers. Mothers were actively involved starting from the material preparation stage, discussing and explaining back to other participants the material they had received. Respondents' active participation in the process of delivering back material can increase learning motivation, make the learning process more enjoyable, and the material studied becomes easily accepted.

In this study, apart from being active in discussions, mothers were also taught proper breastfeeding techniques and positions through demonstration methods. A study conducted by Firdausya & Hardini, (2020) concluded that demonstrating proper breastfeeding techniques can improve a mother's ability to provide exclusive breastfeeding. In infants, exclusive breastfeeding can increase body weight and prevent stunting in the future. After listening to the material that was demonstrated, the mother was asked to do a redemonstration which aims to increase the level of understanding. Health education with demonstration and simulation techniques has proven effective in increasing understanding, cognitive knowledge and skills as well as increasing respondents' self-confidence. The results of this study indicate that there is a significant difference between participatory learning methods and traditional approaches in increasing mothers' knowledge about stunting prevention. Respondents' knowledge about stunting prevention after the Participatory Learning and Action (PLA) was carried out experienced a more significant increase compared to the control

## CONCLUSION

After the provision of learning interventions using the Participatory Learning and Action model, the understanding of mothers and expectant mothers about stunting has increased significantly, especially in the important aspects of prenatal care, exclusive breastfeeding, provision of additional food and various food processing in an effort to prevent stunting. There is a significant difference between giving the Participatory Learning and Action technique and the lecture method in increasing mothers' knowledge in preventing stunting. In the intervention group, the increase in knowledge and awareness of stunting prevention was more significant.

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