

Utilization of Moringa Leaves to Overcome Chronic Energy Deficiency in Pregnant Women at Haruman Village, Leles District, Garut Regency in 2023

Rukmaini^{1*}, Halida Inayah¹, Uswah Zayyidah¹, Rini Suwarni¹, Elisa¹, Noli Rofyati¹,
Siska Mariana¹, Rina Gunawan¹, Halimatussayidah¹

¹*Faculty of Health Sciences, Nasional University, Jakarta*

Submission date: 15-06-2023; Date of received: 10-07-2023; Publication date: 06-09-2023

Abstract

Background: Community midwifery management was to improve the health of mothers and children, toddlers in the family so that healthy and prosperous families are realized in certain communities. In December 2022 Haruman Village has a good health status coverage, K1, K4, Linakes, KF3, KN3, and detection of risk maternity mother was 24%, pregnant women risk was 26%, but in April 2023 there is an increase in detection of women at risk which was 37.5%.

Objective: Describe the priority of problems to interventions related to MCH / KB, together with the community through Community Service activities.

Method: The data used secondary data from Haruman Village. The method of prioritizing problems uses the Delbeque method through Focus Discussion Group (FGD). Results: It was found that about 30 out of 80 pregnant women had a high risk or about 37.5% of them were mild anemia 12.5%, CED 18.75%, and age over 35 years 6.25% Therefore, the group intervened in the form of counseling on CED for pregnant women, which was carried out on Tuesday, May 23, 2023 at TPMB Rini Suwarni, the midwife of Haruman Village, and the provision of Moringa leaf pudding nutrition which can help improve nutrition in pregnant women with CEDs.

Result: Counseling with the lecture method can increase knowledge about nutrition during pregnancy in preventing and overcoming CED. Empowering midwives and cadres to overcome CEDs can provide additional food in the form of processed moringa leaves.

Conclusion: This community service program expected to be followed up elsewhere in the following year to support complementary innovations in preventing and treating CED in pregnant women

Keywords: Chronic energy deficiency, Moringa leaves, Pregnant women

Introduction

Based on Law Number 17 of 2007 concerning the National Long-Term Development Plan for 2005–2025, it was stated that health development was essentially an effort carried out by all components of the Indonesian nation which aims to increase awareness, willingness, and ability to live a healthy life for everyone to realize the highest degree of public health, as an investment for the development of socially and economically productive human resources.

The health program strategy according to the Ottawa Charter emphasizes five pillars of activities that touch various aspects, namely: health-minded policies, a supportive environment, healthcare reorientation, individual skills, and community movements. Health-minded policy activities are aimed at policymakers or decision-makers in both government and private institutions.¹

The purpose of community midwifery management is to improve the health of mothers and children, toddlers in the family to realize healthy and prosperous families in

*Corresponding Author: Rukmaini, Faculty of Health Sciences, Nasional University, Jakarta, email: rukmaini@civitas.unas.ac.id

certain communities and increase community independence in overcoming community midwifery problems to achieve optimal health degrees.²

Haruman Village is one of the villages in Garut Regency that has one of the missions, namely improving the quality of public health services as a whole and being able to carry out sustainable activities to improve the quality of human resource competencies.

Based on the Self-Awareness Survey (SMD), Haruman Village has a good health status coverage, K1, K4, Linakes, KF3, KN3, and risk detection meet the target, but there are problems about 30 out of 80 pregnant women have a high risk or about 37.5% of them mild anemia 12.5%, CED 18.75%, and age over 35 years 6.25%. Based on the results of interviews and data obtained from the midwives of Haruman Village, there was a health problem for pregnant women, namely an increase in the number of pregnant women with CEDs. In 2022, the number of CED mothers was 12% of the total pregnant women and in April 2023 the number of pregnant women with CEDs was almost 18.75% of the total number of pregnant women and the most is in the RW 07 area.

Pregnant women with nutritional and health problems have an impact on the health and safety of mothers and babies and the quality of babies born. The condition of CED pregnant women is at risk of reducing muscle strength that helps the labor process so that it can result in fetal death (miscarriage), premature, birth defects, low birth weight babies (BBLR), and even infant death, CED pregnant women can interfere with fetal growth and development, namely physical growth (stunting), the brain and metabolism that cause infectious diseases in adulthood. CED during pregnancy is a risk factor for anemia in pregnant women caused by a lack of nutritious food intake.³

Follow up on problems found in the area of Haruman Village, Leles District, Garut Regency, West Java. Students practice community stations of the Midwifery Professional Education Study Program, Faculty of Health Sciences, Nasional University of Jakarta, which requires participating in improving community welfare, holding FGD activities "Forum Group Discussion" and intervening according to problems that have been selected as priorities. The need for this activity is because it is useful to increase community participation to solve and contribute to solving problems obtained in the community as a form of helping to reduce Maternal Mortality Rate (MMR) and Infant Mortality Rate (AKB). Concerning the above, we have carried out community midwifery practices in the form of community service in the Haruman Village Area, Leles District, Garut Regency, West Java with the title "Report on Community Midwifery Management Activities in Haruman Village, Leles District, Garut Regency in 2023". This report is authentic evidence that can describe all series of activities in the field from the planning process to the evaluation of activities accompanied by other supporting documents.

Method

The method used in prioritizing problems is Focus Group Discussion (FGD). Focus Group Discussion/ FGD or focus group discussion is a data collection method commonly

used in qualitative social research, including nursing research. This method relies on obtaining data or information from an informant or respondent interaction based on the results of a group discussion that focuses on discussing solving certain problems. Data or information obtained through this technique, in addition to being information from the group, is also an opinion and decision taken from the group.⁴

The participants who attended this FGD were the Secretary of Haruman Village, Village Midwives, Leles Health Center Representatives, cadre leaders, and 3 cadres. Priority analysis of our group problems using the Delbeque method is a technique of prioritizing problems through group discussions, but discussion participants consist of participants who do not have the same expertise, so before the discussion takes place it is first explained regarding the purpose of equalizing perceptions of the problems to be discussed. The result of the discussion is the priority of mutually agreed issues.⁵

Result

The result of the discussion is a mutually agreed priority issue, with the following results.

Table 1.
Analyze Priority Issues by Using *Delbeq Tables*

DELBEQ TABLE																				
PROBLEM	Big deal					Emergency					Cost					Ease				
	(8)					(8)					(6)					(7)				
CED Pregnant Women	8	X	8	=	64	7	X	8	=	56	6	X	6	=	36	7	X	7	=	49
Anemic Pregnant Women	7	X	8	=	56	8	X	8	=	64	4	X	6	=	24	6	X	7	=	42
Pregnant Women Age >35 Years	6	X	8	=	48	6	X	8	=	48	4	X	6	=	24	5	X	7	=	35

After discussion, the priority issue was decided with the Delbeq table, and the highest result, namely 205, was about pregnant women with CEDs. The next stage after determining the priority of the problem is to determine the planning for the implementation of activities agreed upon with the citizens.

Table 2.
The agreement is outlined in the *Planning of Action (POA)*.

Problem	Purpose	Goal	Implementation	Time and place
CED in pregnant women	Increase knowledge about pregnant women with CEDs	<div>- Pregnant women with CED</div> <div>- Integrated Healthcare Center cadres</div>	<div>- Counseling on CED in pregnant women</div> <div>- Innovation by making processed moringa leaf</div>	<div>- Tuesday, May 23, 2023, at 10.30 WIB at the Village Midwife TPMB Hall (TPMB Rini Suwarni, S.TR. Keb)</div>

			pudding - PMT Administration	- Integrated Healthcare Center
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The innovation applied related to complementary medical herbal care is with pudding "MATADOR" moringa leaf supplementary food pudding. This innovation utilizes abundant plants in the working area of Haruman Village, where Moringa plants are very widely found but underutilized. Moringa leaves are plants that are rich in sources of protein, iron, vitamin C, and other important nutrients.⁶

Moringa leaves have great benefits, cheap and easy to obtain. 100 g of dried Moringa leaves contain 27.1 g of protein, 2.3 g of fat, 18.9 mg of vitamin A, 2.64 mg of thiamin, 20.05 mg of Riboflavin, 17.3 mg of Vitamin C, 2,003 mg of calcium, 205 cal of calories, 38.2 g of carbohydrates, 28.2g of iron, 3.29 mg of zinc (zinc) and nutrients. The content of nutritional elements in Moringa leaves is 7 times vitamin C in citrus fruits, 4 times vitamin A in carrots, 4 times calcium in milk, 3 times potassium in bananas, 3 times iron in spinach, and 2 times protein contained in yogurt or protein in an egg. The amino acid content found in Moringa leaves includes leucine, isoleucine, histidine, lysine, arginine, phenylalanine, tryptophan, cysteine, and methionine, amino acids that take the form of acids aspartate, glutamic acid, alanine and Valine.^{6,7}

Based on Circular Number HK.02.02/IV.2243/2020 concerning the Utilization of Traditional Medicine for health maintenance, disease prevention and health care, Moringa leaves can be consumed to maintain health in both children and adults. Boil a handful of Moringa leaves and strain then the water can be drunk. Some preparations from Moringa leaves that can be used as additional food are as Moringa leaf pudding. Pudding is a high-fiber and nutrient-value food.⁶

Moringa leaves are washed thoroughly and then blended finely then strain takes the water, put 2 packets of gelatin with 1 1/2 full cream milk (350 ml), give a little salt then cook until boiling or with coconut milk 500 ml, after boiling remove in stir After that put in a suitable container and serve. It is more delicious if served cold.

Discussion

Results of Extension Activities

1. Event name : Counseling about pregnant women with CEDs
2. Place : Hall of Independent Practice Rini Midwife
3. Time : Tuesday, May 23, 2023
4. Goal : Pregnant women with CEDs and Health cadres
5. Activity Process : Counseling was conducted on the dangers of CEDs using leaflet media.

6. Evaluation :
- Pregnant women with CED attended by 10 people
 - Pregnant women know the impact of getting pregnant with CED, the importance of preventing CED and the importance of eating with nutritious intake
 - The knowledge of pregnant women has increased as evidenced by the presence of 2 pregnant women who actively ask about CEDs

Counseling with calendar media and leaflets is one method used to increase knowledge through writing and pictures about a material.⁸

Pregnant women who experience CED accompanied by anemia can be at risk of low birth weight. The administration of Moringa leaf extract 800 mg per capsule at a dose of 2x2 for 3 months, showed an increase in body weight and also upper arm circumference (LILA) in the intervention group. However, it was not seen for changes in upper arm circumference (LILA) and also hemoglobin levels in the intervention group of pregnant women of information workers.⁹

And together with cadres provide examples of additional food products in the form of Moringa leaf pudding for pregnant women with CEDs because besides being easily available and economically valuable. This is in line with Panjaitan's research (2022) which states that providing nutrition education and preparing recovery menus for CED pregnant women based on local food, have an impact on increasing respondents' knowledge.¹⁰

The provision of nutrition promotion media (leaflets, booklets, and educational calendars) can increase knowledge of pregnant women, and Discussion related to problems experienced during pregnancy in groups of pregnant women is an effective program to improve health and quality of life in pregnant women.¹¹

Then give Moringa leaf pudding products. Participants also tried the product with a fairly good response which was marked by almost all participants spending the products that we had given as examples of additional food for pregnant women with CEDs whose way of presentation was already leafleted. This is in line with Fitriani's research (2019) increasing respondents' knowledge due to health education that has been provided by researchers with various methods and media used and is equipped with simulations on Balanced Nutrition.¹²

Conclusion

Community service activities in the form of counseling pregnant women with CEDs. Handling CED pregnant women should start before pregnancy even from the age of adolescent girls. These countermeasures require coordination across programs and support across sectors, professional organizations, community leaders, NGOs, and other institutions. This counseling is very important considering the danger of CED that occurs in pregnant women can cause fetal death (miscarriage), premature, birth defects, low birth weight babies (BBLR), and even infant death, CED pregnant women can interfere with fetal growth and development, namely physical growth (stunting), brain and metabolism that cause infectious

diseases in adulthood. CED during pregnancy is a risk factor for anemia in pregnant women caused by a lack of nutritious food intake. Moringa leaves are one source of medical herbs that are very high in nutritional content, one of which is folic acid, fe, vitamin C, and other vitamins. The group's innovation that is applied related to complementary medical herbal care is by pudding "MATADOR" moringa leaf supplementary food.

Acknowledgments

This community service activity has received a lot of assistance from various parties, both from institutions, land guides, public health centers, and also community leaders and health cadres. Therefore, through this opportunity, we would like to thank the representatives of the Haruman Village aparat and the Head of the Leles Health Center who have permitted us to carry out community service in the puskesmas work area. Thank you to the land guides who always accompany and provide support. Thank you to pregnant women and health cadres who participated in this community service event.

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