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INTERVENTION OF PROVIDING BLACK GLUTINOUS RICE PORRIDGE TO INCREASE MOTHER'S MILK PRODUCTION

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Abstract

Breastmilk is an essential intake for babies, particularly for their initial stage of life. Breastmilk is liquid produced by breast glands. The low achievement of exclusive breastmilk can affect the quality of future human resources, thus affecting the national economy. In addition, breastmilk that cannot be released smoothly can cause the occurrence of mastitis in mothers, and the babies who do not receive the breastmilk will be susceptible to suffering from diseases. This community service was conducted to educate pregnant mothers in increasing their breast milk production. This community service was conducted at TPMB N Depok, West Java, in January 2024. The research instrument used was in the form of an observation sheet.

Furthermore, this community service was carried out by first preparing the SOP and black glutinous rice porridge, which was further used as the intervention. This activity involved 30 respondents to educate the mothers about the benefits of black glutinous rice porridge in increasing breastmilk production and demonstrating how to make the black glutinous rice porridge. In this case, the black glutinous rice porridge was consumed for a week. As a follow-up, an evaluation was conducted using an observation sheet to measure the smooth production of breast milk. Furthermore, results revealed that black glutinous rice porridge effectively smoothened breastmilk production. In this case, among 30 respondents participating in the community service activity and intervention of consuming the black glutinous rice porridge for a week, only one person, or 3.3% of the respondents, experienced unqualified breastmilk.

Keywords: Black Glutinous Rice, Breastmilk Production

INTRODUCTION

Breastmilk is an essential intake for babies, particularly for their initial stage of life. Breastmilk is liquid produced by breast glands (WAHYUNI, 2023). Breastmilk contains a compound called colostrum that has the benefit of being an antibody because it is rich in protein that maintains the body's immunity and decreases the mortality risk of babies (Fitriasnani et al., 2023). The low achievement of exclusive breastmilk can affect the quality of future human resources, thus affecting the national economy. Based on the data obtained, 34.5% of mothers conducted early breastfeeding initiation (IMD), 35.2% of mothers breastfeed in the first 1-6 hours after giving birth, and 3.7% of mothers breastfeed at 7-23 hours after giving birth (Dwi Pratiwi et al., 2023)

Various factors can cause the low achievement of exclusive breastmilk; one of them is the breastmilk production factor, which is not maximal, causing the high number of babies lacking nutrition due to the reason that mothers cannot optimally provide breastmilk to their babies by their nutritional needs. The cause is that the mother's nutritional intake is poor, there is an unbalanced food menu, and there is unregulated food consumption (Labibah, 2023). The effect of optimal breast milk release makes the mothers think of stopping breastfeeding and changing it to formula milk. Furthermore, Rusli added that another effect of optimal breast milk release is the inhibition of exclusive breastfeeding to babies

until six months, so the achievement of breastfeeding is unmet. When babies do not receive exclusive breastmilk, it will affect their growth and development, and their bodies cannot be protected from various diseases (Dwi Pratiwi et al., 2023)

Various efforts have been conducted to overcome the Breastmilk production disorder, both in terms of pharmacology and non-pharmacology. Regarding pharmacology, ASIfit, Moloco B12, katuk leaves, and moringa leaves tablets are provided (Erisqianova et al., 2023). Meanwhile, various efforts have been made in non-pharmacological methods, such as providing oxytocin massage, APPA massage, mung bean juice, and black glutinous rice (Sinta Widyaningrum, 2023).

A preliminary study was done by the researchers in TPMB N through a short interview, obtaining that ten postpartum mothers were experiencing optimal breast milk release in the last month. According to the information obtained, these postpartum mothers have never received any information on how to overcome breastmilk production disorder. Therefore, it underlies the intention of the team to carry out community service in providing black glutinous rice porridge to improve breastmilk release.

Figure 1

Extension activities on providing black sticky rice porridge to increase maternal breast milk production

The targets of this community service activity are postpartum mothers who have experienced a disorder in breast milk release. The objective of this community service is to know the effectiveness of providing black glutinous rice porridge on breastmilk production in both intervention and control groups.

METHODS AND PROCEDURES

This community service was conducted in TPMB N Depok, West Java, in January 2024. The instruments used included a camera, pen, and observation sheet. Furthermore, this activity was done by first preparing the SOP and black glutinous rice porridge, which was further used as the intervention. This activity involved 30 respondents, with the intervention given in the form of educating them on the benefits of black glutinous rice porridge to increase breastmilk production. The consumption of black

glutinous was carried out for a week. Furthermore, follow-up was also carried out in evaluation using observation san heat to measure the smoothness of breastmilk production.

Steps for making black sticky rice porridge:

1. The first step in making black sticky rice porridge is to soak the black sticky rice seeds in water for several hours. This soaking process aims to make the black sticky rice seeds soft and make the cooking process easier.
2. The black sticky rice seeds are then washed thoroughly with running water to remove any dirt or remaining residue. After washing, put the black sticky rice in a pan with enough water. The ratio between black sticky rice and water can be adjusted according to your wishes, depending on the level of thickness desired for the porridge later.
3. Cook the pan with black sticky rice and water over medium heat until it boils. Once boiling, the heat can be lowered to low heat and the porridge is allowed to boil slowly while stirring periodically to prevent the sticky rice from sticking to the bottom of the pan and burning.
4. While waiting for the black sticky rice porridge to cook, you can add additional ingredients according to your taste, such as Javanese sugar or brown sugar to give it a natural sweet taste, or coconut milk to give the porridge a richer and softer texture.
5. The process of cooking black sticky rice porridge usually takes around 30-45 minutes, depending on the amount and type of sticky rice used. Once the porridge is cooked and reaches the desired consistency, turn off the heat and let the porridge cool slightly before serving.
6. Black sticky rice porridge is ready to be served as a warm or cold dish. You can also add toppings such as toasted sesame seeds, shredded coconut pieces, or sliced bananas to add flavor and texture to the dish. Enjoy!

Figure 2 Black Glutinous Rice

Figure 3 Porridge from Black Sticky Rice

DISCUSSION RESULT

1. Preparation Stage

   Preparation started by submitting the proposal and continued by making the activity permits. Before the activity was carried out, the community service team initially visited the location.

2. Implementation Stage

   The implementation of community service was carried out by utilizing the tools and materials needed. After an explanation was given to the mothers willing to participate in the activity, the intervention was given to them in the form of providing black glutinous rice porridge. In addition, informed consent was also distributed.

3. Evaluation Stage

   After the implementation was completed, an evaluation was done to assess the effects of the implementation. The evaluation was done by fulfilling the observation sheet. Based on the implementation of the intervention in this community service, 30 respondents participated until the end of the activity. The whole team carried out this activity. In addition, the intervention group also obtained a follow-up in the form of an evaluation using an observation sheet to measure breastmilk production.

Among 30 respondents involved, their breastmilk production before the intervention is categorized into three groups (smoothly, quite smoothly, and not smoothly). In this case, 10% of respondents had smooth breastmilk production before the intervention, 40% had relatively smooth breastmilk production, and 50% had not smooth breastmilk production.

DISCUSSION

Based on the results of this activity, black glutinous rice porridge effectively increases breastmilk production smoothness. In this case, among 30 respondents who participated in the intervention of consuming black glutinous rice porridge for a week, only one respondent, or 3.3% of the respondents, experienced optimal breastmilk production.

Optimal breast milk production can inhibit exclusive breastfeeding to babies until the age of 6 months, so the achievement of breastfeeding is not met. When babies do not receive exclusive breastmilk, it will affect their growth and development, and their bodies cannot be protected from various diseases (Hastuti & Wijayanti, 2017). In addition, breastmilk that cannot be released smoothly can cause the occurrence of mastitis in mothers (Junita et al., 2022). Health workers have conducted various efforts to increase breastmilk production in terms of pharmacology and non-pharmacology. Vitamin B12, ASIfit, Lancar ASI, and Blackmores Pregnancy and Breastfeeding Gold are provided regarding pharmacology. Meanwhile, in terms of non-pharmacology, oxytocin massage, lactation massage, breast care, octane massage, black glutinous rice porridge, acupuncture, and acupressure are provided (Indrayani et al., 2022).

There are various reasons why breastmilk production release is not optimal, including psychological factors, lack of knowledge, lack of support from family, and lack of nutrition, causing the glands producing the breastmilk not to work well and thus affecting the production of breastmilk. Black glutinous rice contains a higher mineral (Ca, P, Fe, and Zn) and dietary fiber compared to red and white rice; due to its rich in nutrition, black rice contains 26.3% anthocyanin, and its foremost functional is chrysanthemum (cyanidin-3-O-glucoside) and methyl-cyanidin (peonidin-3-O-glucoside), whose amount reaches 90% (Kim et al., 2010). Anthocyanin is one of the materials used to make black glutinous rice, a natural coloring found in blueberry (Ichikawa et al., 2001). Furthermore, the antioxidant found in eggplant and blueberry is called anthocyanin. In addition, black glutinous rice also contains many other nutrients such as iron, protein, carbohydrates, and fiber, so it helps to prevent anemia in breastfeeding mothers (Saras, 2023).

The consumption of black glutinous rice also has antiaging, antivirus, anticancer, and anti-inflammation effects (Kanha et al., 2021). No other rice can compete with black glutinous rice regarding nutrition variety. This rice is gluten, cholesterol, sugar, salt, and fat-free. Black glutinous rice contains whole wheat, which is high in protein, antioxidants, anthocyanin, iron, vitamins B and E, thiamine, niacin, magnesium, phosphor, high protein, mineral, and vitamin (Dash et al., 2014). They are also anti-atherosclerosis, anti-allergy, and preventing the occurrence of cancer. In addition, they can also improve anemia conditions due to iron deficiency (Deng et al., 2013).

Research conducted by Louisiana State University in 2010 shows that food producers add black glutinous rice to certain foods such as cake, cereal, pastry, and beverages to improve nutrition and health (Jun et al., 2015).

CONCLUSION

Based on the results of this community service, it can be concluded that the education given to pregnant women regarding the benefits of black sticky rice has proven effective in two main aspects: increasing knowledge and increasing breast milk production. First of all, it is proven that through this education, pregnant women's knowledge about the benefits of black sticky rice has increased

significantly. They have a better understanding of the nutritional content contained in black sticky rice and its positive impact on the health of the mother and fetus. This information allows pregnant women to make wiser food choices during their pregnancy, thereby improving their health and that of their unborn babies. Thus, it can be stated that educational efforts regarding the benefits of black sticky rice have had a positive and real impact in increasing knowledge and breast milk production among pregnant women. These steps not only have the potential to improve the health of mothers and babies, but can also help create a healthier and stronger generation in the future.

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