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The Effect of Fried Bean Consumption on Milk Production in Postpartum Primigravida Mothers at the Lakessi Health Center, Parepare City in 2024

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ABSTRACT

Background: Fried beans are very high in protein and unsaturated fats. Protein is very good to help the mother's birth scar heal quickly. Then the fat content between postpartum mothers who consume fried beans and those who do not consume fried beans to milk production will also help how to make milk come out a lot after giving birth so that mothers do not need to use supplements or lactation massage.
Methods: This study used a quantitative type of research. The design used in this study is a quasy experiment design using the pre test and post test nonequivalent control group approach.
Results: This study showed that the feeding of fried beans on the breast milk production of postpartum mothers had.
Conclusion: This study concluded that there is an effect of feeding fried beans on the breast milk production of primigravida postpartum mothers in the working area of the Lakes Health Center in Parepare City in 2024.

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INTRODUCTION

Breast milk is the most beautiful gift for the baby secreted by both sides of the mother's breast glands in the form of natural food or the best nutritious and high-energy milk that is easy to digest and contains a balanced nutritional composition and is perfect for the body for the baby's growth and development that is available at any time, and ready to eat (1).

Exclusive breastfeeding is breastfeeding for up to 6 months without additives such as fruit, formula milk, tea, honey, water, and additional solid foods such as rice, porridge or bananas from birth to 6 months old (2).

Based on data from the Word Health Organization (WHO) in 2020, it explained that data in the form of exclusive breastfeeding rates globally, although there has been an increase, this figure has not increased significantly, namely around 44% of babies aged 0-6 months worldwide who received exclusive breastfeeding during the 2015-2020 period from 50% of the exclusive breastfeeding target according to WHO. Nationally, the coverage of babies who received exclusive breastfeeding in 2019 was 67.74%. This achievement has met the global target and also the government's target for 2020, namely the percentage of babies under 6 months old who receive exclusive breastfeeding of 40% (3). Data from the South Sulawesi Health Office, the coverage of exclusive breastfeeding in

South Sulawesi in 2019 was 70.82%. The highest percentage is Sinjai district at 86.02% and the lowest is Bantaeng at 60.49%, while Wajo Regency has exclusive breastfeeding coverage of 68.09% (4).

Breastfeeding is known to be an irreplaceable way of feeding babies because it provides many benefits for children and mothers. The benefits obtained by children if they get breast milk are such as prevention of diseases and chronic conditions such as diabetes stipe2, asthma, and obesity. Exclusive breast milk also has the ability to prevent and reduce the incidence of infectious diseases such as gastroenteritis, acute respiratory tract infections (ISPA), and acute otitis mediates (OMA).

Breastfeeding babies can affect the growth and development of the baby's body. Babies who do not get enough breast milk can experience disturbances in their growth and development process and are prone to experiencing health problems in the future such as overweight, cardiovascular disease, and lack of intelligence and are at higher risk of gastrointestinal infections.

Non-output breast milk is a condition in which breast milk is not produced or there is little milk production. This is due to the influence of the hormone oxytocin which is less active due to the lack of stimulation of the baby's suction that activates the work of the hormone oxytocin. Efforts to overcome unsmooth breastfeeding can be done pharmacological and non-pharmacological methods. Non-pharmacological efforts are easier to do, simple, do not cost money and do not cause side effects. One of the pharmacological methods that can be done to overcome breast milk incontinence is acupressure and oxytocin massage. Acupressure is a traditional Chinese medicine technique, namely by pressing certain points using the thumb or a special tool made of wood. The benefits of acupressure include increasing the body's immunity, stimulating the nervous system, relaxing the body and improving blood circulation, and oxytocin massage is one of the solutions to overcome unsmooth breast milk production. Oxytocin massage is a massage along the spine (vertebrae) to the fifth-sixth costae bone and is an attempt to stimulate the hormones prolactin and oxytocin after childbirth (5).

Fried beans are very high in protein and unsaturated fats. Protein is very good to help the mother's birth scar heal quickly. Then the fat content between postpartum mothers who consume fried beans and those who do not consume fried beans to milk production will also help how to make breast milk come out a lot after giving birth so that mothers do not need to use supplements or lactation massages. The nutritional content of fried beans is quite high and the composition is complete, based on the amount of protein is the second main constituent after carbohydrates, which is fried beans which contain 25.5 grams of protein. High protein is needed by mothers during lactation and the protein contains amino acids that can stimulate breast milk production.

For this reason, this study aims to find out whether the feeding of fried beans affects the production of breast milk of primigravida postpartum mothers in the working area of the Lakes Health Center in Parepare City

METHOD

This study uses a type of quantitative research. The design used in this study is a quays experiment design using the pretest and post-test non-equivalent control group approach.

This research was carried out in the working area of the Lakes Health Center in Parepare City. This research was conducted from April to July 2024. The sampling technique used in this study is accidental sampling. And the data analysis method uses univariate analysis and bivariate analysis

RESULT

Univariate Analysis

Table 1. Distribution of Age Characteristic Frequency in Postpartum Mothers in the Working Area of the Lakesi Health Center, Parepare City in 2024

Age	Experimental group		Control group	
	F	%	F	%
<21 Years	4	26,7	2	13,3
>21 Years	11	73,3	13	86,7
Total	15	100%	15	100%

Based on table 1, the results were obtained that the most respondents in the Experimental group (who were given fried beans) were >21 years old as many as 11 people (73.3%), and those who were <21 years old as many as 4 people (26.7%), then for the control group respondents (who were not given fried beans) the most were >21 years old with a total of 13 people (86.7%), for respondents with <21 years old there were 2 people (13.3%).

Table 2. Distribution of Characteristic Frequency based on education for postpartum mothers in the working area of the Lakes Health Center, Parepare City in 2024

Education	**Experimental Group**		**Control Group**	
	F	%	F	%
JUNIOR	2	13,3	2	13,3
SMA	11	73,4	10	66,7
D3	2	13,3	1	6,7
S1	0	0	2	13,3
Total	15	100%	15	100%

Based on table 2 above, it was obtained that the Experiment respondents (who were given fried beans) had a junior high school education as many as 2 people (13.3%), who had a high school education as many as 11 people (73.4%), and who had a D3 education as many as 2 people (13.3%). Then for the control group (not given fried beans) who had a junior high school education as many as 2 people (13.3%), had a high school education as many as 10 people (66.7%), had a D3 education as many as 1 person (6.7%), and who had a S1 education as many as 2 people (13.3%).

Table 3. Distribution of Characteristic Frequency based on work in postpartum mothers in the working area of the Lakesi Health Center, Parepare City in 2024

Work	Experimental Group		Control Group	
	F	%	F	%
IRT	13	86,7	13	86,7
Honorary	2	13,3	2	13,3
Total	15	100%	15	100%

Based on table 3, the Experiment respondents (who were given fried beans) who had IRT jobs were 13 people (86.7%), and those who had honorary jobs as many as 2 people (13.7%), for the control group (who were not given fried beans) who had peers as IRT as many as 13 people (86.7%), and those who had honorary jobs amounted to 2 people (13.3%).

Table 4. Experimental Group Average Pre and Post Breast Milk Production for Fried Beans in the Experimental Group in the working area of the Lakesi Health Center, Parepare City

Group	N	Mean	Min	Max	Standard Deviation
Pre test	15	110,00	90	130	12,536
Post test	15	139,33	130	150	7,988

Based on the table above, it shows that in the experimental group (given fried beans) when the pre-test was carried out , the average milk production was 110ml with a minimum of 90ml and a maximum of 130ml with a standard deviation of 12,536. Meanwhile, at the time of the post test, the average milk production was 139.33ml with a minimum of 130ml and a maximum of 150ml with a standard deviation of 7.988.

Table 5. Control Group Average Pre and Post Breast Milk Production Fried Beans Feeding in the Control Group in the working area of the Lakesi Health Center, Parepare City

Group	N	Mean	Min	Max	Standard Deviation
Pre test	15	95,33	90	110	6,399
Post test	15	102,00	90	120	9,411

The table above explains that in the control group (not given fried beans) when the pre-test was carried out, the average milk production was 95.33ml, with a minimum of 90ml and a maximum of 110ml and a standard deviation of 6.399. Meanwhile, when the post test was carried out, the average breast milk production was 102ml with 90ml and a maximum of 120ml with a standard deviation of 9.411.

Bivariate Analysis
Normality Test

Table 6. Normality Test The variable of feeding fried beans affects the production of breast milk of primigravida postpartum mothers in the working area of the Lakes Health Center, Parepare City

	Class	Shapiro-Wilk		
		Statistics	Df	Sig.
Number of Breast Milk Volume	Experiment	,817	15	,006
	Control	,783	15	,002

Source: Spss 20 normality test.

Based on the results of the data normality test using the Shapiro-Wilk test (because the number of samples of 50 respondents) was obtained< a value of 0.05 where it was found that the data was not distributed normally, so the wilcoxon test was used.

Wilcoxon Test

To find out whether there was an effect of fried beans on breast milk production between the experimental group (given fried beans) and the control group (not given fried beans), the Wilcoxon test was used.

Table 7. Wilcoxon Test Comparison of the average and results of the fried bean feeding test has an effect on the production of breast milk of primigravida postpartum mothers in the working area of the Lakes Health Center, Parepare City.

Breast Milk Production		Mean	SD	P value
Pre Test Experiment	0,00	0,00		
Post Test Experiment	7,50	105	0,001	
Pre Test Control	5,25	10,50		
Post test Control	3,50	17,5	0,527	

It can be seen from the table above that the average value of the 15 respondents in the experimental group before being given fried beans was 0.00, after the respondents were given fried beans was 7.50. Meanwhile, the average indigo of 15 control respondents (Pre-test control) was 5.25, while the control respondent (Post test control) was 3.50. The p-value in the pretest and posttest experimental group is 0.001, where if the results of the study show a p< value of 0.05 then H0 is rejected and H1 is accepted, which means that there is an effect of fried beans on the production of breast milk of primigravida postpartum mothers in the working area of the Lakes Health Center, Parepare City, while the p-value in the control group before (pretest) and after (posttest) is 0.527, where if the results of the study show a p> value of 0.05, then H_0 is accepted and H1 is rejected, which means that there is no effect of an increase in the amount of breast milk in postpartum mothers if fried beans are not given.

DISCUSSION

Based on the average value of 15 respondents in the experimental group before being given fried beans, which was 0.00, after the respondents were given fried beans, which was 7.50. Meanwhile, the average indigo of 15 control respondents (Pre-test control) was 5.25, while the control respondent (Post test control) was 3.50. The p-value in the pretest and posttest experimental groups is 0.001, where if the results of the study show a p< value of 0.05, then H0 is rejected and H1 is accepted, which means that there is an effect of fried beans on the production of breast milk of primigravida postpartum mothers in the working area of the Lakessi Health Center, Parepare city. While the p-value in the control group before (pretest) and after (posttest) was 0.527, where if the results of the study showed a p> value of 0.05 then H0 was accepted and H1 was rejected which means that there is no effect of an increase in the amount of breast milk in postpartum mothers if fried beans are not given.

Previous research conducted in Padang Baruas Village, North Padang Lawa Regency in 2020 showed that giving peanuts was able to increase breast milk production 3,317 times more effectively in breastfeeding mothers (6). Another study said that there are 2 mechanisms in the formation of breast milk, namely the synthesis mechanism and the secretion of synthesis is the process of forming breast milk which is greatly influenced by the ingredients that form breast milk, namely carbohydrates, fats, proteins, vitamins, and minerals, peanuts are rich in vitamins and minerals so that the consumption of peanuts will support the process of providing ingredients for breast milk synthesis (7-10).

Oxytocin is very useful for the production process of breast milk and man provides a substrate material to carry out milk synthesis in the alveoli glands. The hormone oxytocin has an effect on increasing the process of breast milk production in the substrate needed that can be fulfilled by the nutrients contained in peanuts, namely protein, fatty acids, vitamins and minerals (11,12).

The results of this study were reviewed from the theory of peanut juice administration carried out on postpartum mothers from the first day to the 14th day of postpartum and the measurement of the baby's weight on the 15th day of postpartum (13-15).

In the results of this study, the researcher assumes that the increase in breast milk production in primigravida postpartum mothers is due to the content of protein, vitamins, fats, and minerals in beans that support the process of providing ingredients for breast milk synthesis.

CONCLUSION

Based on the results of the research and discussion on the effect of fried bean consumption on breast milk production in primigravida postpartum mothers at the Parepare City Lakes Health Center as many as 30 respondents, it can be concluded that there is an effect of fried beans on the production of primigravida postpartum breast milk in the working area of the Parepare City Lakes Health Center in 2024.

SUGGESTION

It is hoped that the community, especially pregnant and postpartum women who are breastfeeding, will maintain their nutritional intake, one of which can be by consuming fried beans to increase breast milk production so that later the baby can grow and develop properly because the nutritional intake has been well met.

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