THE EFFECT OF CONSUMPTION OF LONG BEAN LEAVES (VIGNA SINENSIS) ON INCREASING ASI PRODUCTION IN BREASTFEEDING MOTHERS IN THE WORKING AREA OF PUSKESMAS PEBAYURAN DISTRICT BEKASI

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Abstract

Babies really need breast milk, especially at the beginning of life. Breast milk is good food for babies because it contains lots of nutrients and can provide natural immunity. Many mothers stop giving exclusive breastfeeding because they feel that their breast milk is not sufficient for the baby's needs. The problem of the process of releasing breast milk not flowing smoothly is one of the reasons why someone cannot breastfeed their baby so that the breastfeeding process is disrupted. The aim of this research is to determine the effect of consuming long bean leaves on increasing breast milk production in breastfeeding mothers in the Pebayuran Community Health Center Work Area, Bekasi Regency in 2023.This research uses the Pre Experiment Statistics Comparison Group research type. The population in this study was 34 breastfeeding mothers. The sampling technique used in this research was a total sampling technique of 34 people. Results data analysis used univariate and bivariate analysis (Mann-Whitney). The research results showed that the mean weight rank of babies in the control group who were not given long bean leaves was 20.31, while the weight of babies in the intervention group after being given long bean leaves was 48.69. The results of the statistical test show a value of p = 0.000, which is greater than the significance level, namely α = 0.05, so it can be concluded that Ho is rejected and Ha is accepted. The conclusion of this research is that there is an effect of consuming long bean leaves on increasing breast milk production in breastfeeding mothers in the Pebayuran Community Health Center working area, Bekasi Regency. Suggestions for respondents to continue consuming long bean leaves to increase breast milk production in all breastfeeding mothers in the hope of maintaining or increasing mothers' breast milk production.

Keywords: Breast Milk Production, Breastfeeding Mothers, Consumption of Long Bean Leaves (Vigna Sinensis)

Introduction

Exclusive breastfeeding is breastfeeding only for infants aged 0-6 months without providing additional foods other liquids such as formula milk, oranges, honey and tea water, besides that additional food is also not recommended both in solid and liquid form. After 6 months of age, babies begin to be given additional food or complementary foods (MPASI). Breastfeeding can be given until the baby is 2 years old. International guidelines recommend exclusive breastfeeding based on scientific evidence related to the benefits of breast milk (Maryunani, 2015).

According to Maryunani (2015) several benefits in breastfeeding, including babies who get exclusive breastfeeding are healthier and stronger than those who do not consume breast milk. Breast milk is also able to prevent the occurrence of lymphomamaligma cancer (cancer of the glands). Breast milk also prevents children from hungry edema / malnutrition. Benefits for baby's intelligence because

breast milk contains the best DHA, in addition to lactose which functions for the process of linning the brain.

Of the 136.7 million babies born worldwide and only 32.6% of them are exclusively breastfed in the first 6 months. In developing countries only 39% of mothers exclusively breastfeed. While in industrialized countries, babies who are not exclusively breastfed have a higher mortality rate than babies who are exclusively breastfed (Unicef, 2013).

Many mothers stop exclusive breastfeeding because they feel that their milk is not sufficient for the baby's needs. Around 35% of mothers stop breastfeeding exclusively in the few weeks post partum because they feel less breastfed and the baby feels dissatisfied (Sutanto, 2018).

Based on the Indonesian Demographic and Health Survey (IDHS), the coverage of infants who received exclusive breastfeeding in 2017 was 61.33%. Of course, this figure is still not as expected, which is 80% coverage of babies who are exclusively breastfed. One of the reasons why mothers do not provide breast milk is that milk production is small and not sufficient for the baby's needs (Ministry of Health RI, 2018).

Based on Data in Regencies / Cities in West Java In 2021, the Percentage of Exclusive Breastfeeding for Infants <6 Months The Total Percentage of Breastfeeding was 1,860.77, down from -6.11% in 2022. The average value of the percentage of breastfeeding each year is 1,724.61 in the last 4 years (Riskesdas, 2021).

Efforts that can be made in dealing with the problem of insufficient milk production in breastfeeding mothers are additional foods, namely rice, vegetables, side dishes and fruit are diverse foods in a day (healthy menu package). Long bean plants (vigna sinensis) have been widely known by the public as consumption vegetables. Long bean leaves are also consumed in vegetable form with the name mauve. These string bean leaves are easy to obtain and they are cheap. Communities, especially in villages, often use long bean leaves as breast milk boosters because they can increase breast milk production or as lactogogum (Djama, 2018).

Long bean leaves are also consumed in vegetable form with the name mauve. These string bean leaves are easy to obtain and they are cheap. Communities, especially in villages, often use long bean leaves as a breast milk booster and increase breast milk production or as lactagogum. Has the potential to stimulate oxytoxin and prolactin hormones such as alcolloids, saponins, polyphenols, steroids, flavonids and other substances most effectively in increasing and launching breast milk production (Djama, 2018).

Method

This study uses a type of experimental research, namely to identify the effect of giving long bean leaves on breast milk production in breastfeeding mothers in the working area of the Pebayuran Health Center, Bekasi Regency. This study was conducted to determine the consequences of a treatment given intentionally by researchers. While the design of this study is the Pre Experiment Statistical Comparison Group where this type of research uses one group divided into two, one gets an experimental stimulus (which is treated) and the other does not get any stimulus as a control tool (Notoatmodjo, 2010).

The population in this study was 34 breastfeeding mothers who came to the KIA Poly, Pebayuran Health Center, Bekasi Regency in September 2023. The sampling technique used in this study is using the total sampling technique, which is a sampling method by taking all members of the population into a sample. In this study, researchers concluded that the sample studied was 34 respondents as equal to the population.

Result

Table 5.1. Frequency distribution of respondents based on age in the working area of the Pebayuran Health Center, Bekasi Regency

No	Age	Control Group		Intervention Group	
		f	%	f	%
1	< 25 Years	3	8.8	1	2.9
2	25-35 Years	26	76.5	25	73.5
3	> 35 Years	5	14.7	8	23.5
	Total	34	100	34	100

Table 5.1 above found that most respondents in the control group were at the age of 25-35 years as many as 26 respondents (76.5%), and respondents in the intervention group were at the age of 25-35 years as many as 25 respondents (73.5%).

Table 5.2. Frequency distribution of respondents based on parity in the working area of the Pebayuran Health Center, Bekasi Regency

No	Parity	Control Group		Intervention Group	
		f	%	f	%
1	1st child	16	47.1	21	61.8
2	2nd child	13	38.2	9	26.5
3	3rd child	5	14.7	4	11.8
	Total	34	100	34	100

Table 5.2 above found that most respondents in the 1st child parity control group were 16 respondents (47.1%), and respondents in the 1st child parity intervention group were 21 respondents (61.8%).

Table 5.3. Frequency distribution of respondents based on education in the working area of the Pebayuran Health Center, Bekasi Regency

No	Education	Control Group		Intervention Group	
		f	%	f	%
1	Primary School	2	5.9	2	5.9
2	Junior High School	4	11.8	6	17.6
3	High School	26	76.5	24	70.6
4	College	2	5.9	2	5.9
	Total	34	100	34	100

Table 5.3 above found that most respondents in the control group with high school education were 26 respondents (76.5%), and respondents in the intervention group with high school education were 24 respondents (70.6%).

Table 5.4. Frequency distribution of respondents based on work in the working area of the Pebayuran Health Center, Bekasi Regency

No	Work	Control Group		Intervention Group	
		f	%	f	%
1	Houswives	27	79.4	25	73.5
2	Self Employed	3	8.8	5	14.7
3	Civil Servants	2	5.9	1	2.9
4	Other	2	5.9	3	8.8
	Total	34	100	34	100

Table 5.4 above found that most respondents in the control group whose work IRT was 27 respondents (79.4%), and respondents in the intervention group whose work was IRT were 25 respondents (73.5%).

Table 5.5. Average Distribution of Respondents' Breast Milk Production Before and After Being Given Long Bean Leaves in the Working Area of the Pebayuran Health Center, Bekasi Regency

	Group	N	Mean Rank	Sum of Ranks	P value
Baby Weight	Control	34	20.31	690.50	0.000
	Intervention	34	48.69	1655.50	
	Total	68			

Table 5.5 From the results of the study above, it was found that the mean weight rank of the control group babies who were not given long bean leaves was 20.31, while the weight of babies in the intervention group after being given long bean leaves was 48.69. The results of the statistical test obtained a value of $p = 0.000$ which value is greater than the significant level of $\alpha = 0.05$, it can be concluded that Ho was rejected and Ha was accepted which means There is an effect of long bean leaf consumption on increasing breast milk production in breastfeeding mothers in the working area of the Pebayuran Health Center, Bekasi Regency.

Discussion

Breast milk production in the control group in breastfeeding mothers in the working area of the Pebayuran Health Center, Bekasi Regency

According to Khasanah (2013) factors that affect breast milk production consist of maternal food (nutrition) factors, breastfeeding frequency, maternal psychological condition, use of contraceptives and breast care.

The next factor affecting milk production is the work of the mother. Non-working mothers may give milk more often, so milk production increases. The more often the baby feeds on the mother's breast, the more milk production and expenditure will be. Sucking from the baby's mouth will stimulate the hypothalamus gland in the posterior pituitary. The anterior pituitary produces stimulation (prolactin) to increase the production of the hormone prolactin to produce breast milk (Khasanah, 2013).

In the results of the study above, during the pre-test and post-test, respondents experienced the same value, namely as many as 26 respondents whose milk production fell. This decreased milk production can be caused because the mother does not consume foods that help increase milk production. Baby weight loss or increase < 280 grams in 1 week.

But not infrequently mothers who experience impaired milk production because milk production is related to the hormonal system which is strongly influenced by psychological factors such as stress. So this increase is less than normal which can be caused by hormonal factors or lack of baby sucking, frequency of breastfeeding and can also be caused by lack of food nutrition so that milk production is

small.

Breast milk production in the intervention group for breastfeeding mothers in the working area of the Pebayuran Health Center, Bekasi Regency

Of all respondents who were given long beans, 30 respondents (88.2%) experienced an increase in milk production, from various factors that affect milk production, indicating that breastfeeding mothers also need foods that can launch breast milk such as long bean leaves.

Long bean leaves have the potential to stimulate oxytoxin and prolactin hormones such as alcolloids, saponins, polyphenols, steroids, flavonids and other substances that are effective in increasing and launching breast milk production. Long bean leaves that will be used in the study as much as 200 grams. In addition, every 100 grams of long bean leaves contain energy of 34 kilocalories, protein 4.1 grams, carbohydrates 5.8 grams, fat 0.4 grams, calcium 134 milligrams, phosphorus 145 milligrams, and iron 6 milligrams. In addition, the Long Bean Leaves also contain vitamin A as much as 5240 IU, vitamin B1 0.28 milligrams dC 29 milligrams and water 88.30 grams (Khusmawati, 2021).

Some postpartum mothers do not immediately release breast milk after giving birth because milk production is a very complex interaction between mechanical, nervous and various hormones that affect oxytocin production (Astutik, 2014).

Therefore, the production of the hormone oxytocin in addition to being influenced by baby suction is also influenced by receptors located in the ductal system, if the duct dilates or becomes soft, it is reflexorically released oxytocin by the pituitary which plays a role in squeezing milk from the alveoli (Astutik, 2014).

The effect of long bean leaf consumption on increasing breast milk production in control groups in nursing mothers who were not given string bean leaves and the intervention group in nursing mothers who were given long bean leaves

The difference in milk production between mothers who were not given long bean leaves and those given long bean leaves was where the milk production of mothers who were given long bean leaves was more than mothers who were not given long bean leaves because long bean leaves contain many substances that can stimulate the production of oxytocin and prolactin hormones in producing and secreting breast milk, While mothers who are not breastfed only rely on the stimulation of nipple suction by the baby's mouth.

Mothers who were given long bean leaves had 2 stimulants to stimulate oxytocin and prolactin, namely the content of substances in long bean leaves coupled with the stimulation of baby's mouth suction so that more milk production was evidenced by much more weight gain.

This is in line with a study conducted by ida kusmawati (2021) entitled The Effect of Long Bean Leaf Consumption (Vigna Sinensis) on Breast Milk Production in Postpartum Mothers at Bpm Siti Nurcahyaningsih Amd.Keb Malang City with the results of research on the category of breast milk production in the control group almost half normal and down, namely 4 respondents (40%) and 2 respondents (20%) increased, while in the intervention group all rose (100%). The results of the Mann Whitney test are based on the parameters of increasing infant BB and infant defecation (p value = 0.001), so that H1 is accepted which means that there is an influence of long bean leaves on breast milk production in postpartum mothers at PMB Siti Nurcahyaningsih Murdijono, A.Md.Keb Malang City.

Strengthened by research conducted by Gustien Siahaan and Lailatul Badriyah (2022), entitled The Effect of Long Bean Leaf Consumption on Mother's Breast Milk Production in Sungai Jernih Village, Muara Tabir District, Tebo Regency in 2022. The results showed that there was an effect of Long Bean leaf consumption on Mother's Breast Milk Production in Sungai Jernih Village, Muara Tabir District, Tebo Regency in 2022 with a value of p = 0.000.

This is in agreement with Nuzliati T. Djama (2017), a study entitled The Effect of Long Bean

Leaf Consumption on Increasing Breast Milk Production in Breastfeeding Mothers in the Jambula Health Center Work Area in 2017. The results showed that there was a difference between the baby's weight before treatment and the baby's weight after treatment with a value of p = 0.000 < of the value of α (0.05).

From the results of the study, there were still 4 respondents (11.8%) who after being given the intervention of giving long bean leaves but still experienced a decrease in milk production due to psychological factors, namely breastfeeding mothers felt worried or not confident in giving milk to their babies.

Breast milk production is strongly influenced by psychiatric factors. When breastfeeding, a mother needs peace of mind, and vice versa far from feeling depressed because it will affect milk production and the comfort of the baby while breastfeeding. Sometimes, mothers feel insecure because of lack of milk. Plus the wrong opinions and suggestions from others cause the mother to quickly change her mind and become stressed. As a result, it can suppress reflexes so that breast milk does not produce properly (Khasanah, 2013).

Conclusion

There were differences in milk production in the control group in nursing mothers who were not given long bean leaves and the intervention group given long bean leaves with the results of the Mann-Whitney Test it was known that the p value was 0.000 or the value was < α (0.05) so that Ha was accepted which means there is an effect of long bean leaf consumption on increasing milk production in breastfeeding mothers in the working area of the Pebayuran Health Center, Bekasi Regency.

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