



The Effectiveness Of Administering Red Bean Juice And Green Bean Juice On Adequate Milk Production In Post Partum Mother

Suwiyani, Nuril Nikmawati, Masini

Email : suwianis@gmail.com

ABSTRACT

Background :The coverage of babies aged less than 6 months who received exclusive breastfeeding in Central Java in 2020 was 76.30% and in 2021 it was 72.5%. The Health Profile of Temanggung Regency shows that the coverage of exclusive breastfeeding in 2019 was 86.0% where The target has been met, namely 84%. Meanwhile in 2020 it was 74.01%, it still did not meet the target in 2020, namely 80%. This shows a decrease when compared to the percentage of exclusive breastfeeding in 2020. This research aims to determine the effectiveness of giving red bean juice and green bean juice on the adequacy of breast milk production in post partum mothers

Methods :This type of research uses quasi-experiment with a one group pretest-posttest design approach. The population in this study is all postpartum mothers in the Tretep Health Center Working Area who are estimated to give birth normally from September to November 2023. The total sample was 32 postpartum mothers taken using purposive sampling technique. The number of samples was divided into two intervention groups, namely the group given red beans and the green bean group. Each intervention was carried out by consuming 300 ml twice a day for 7 days. The adequacy of breast milk is assessed based on criteria such as the frequency and duration of breastfeeding, the frequency of bowel movements and bowel movements, and the baby's weight.

Results :The results of data analysis using the Mann Whitney test obtained the results of p value = 0.035 < 0.05, the average adequacy of breast milk after the provision of red bean juice 19.5 and the average adequacy of breast milk after the provision of green bean juice 13.5 so that the provision of red bean juice is more effective for the adequacy of breast milk than the provision of green bean juice

Conclusions :The conclusion from this research is that red bean juice is more effective than green bean juice for adequate breast milk production in mothers after giving birth.

Keywords : Green Bean Juice, Red Bean Juice, Adequate Breast Milk Production

¹Tretep Public Health Center, Temanggung, Indonesia

Jl. Desa Tretep Dawuhan, Tretep, Temanggung, Jawa Tengah, Indonesia

^{2,3}Department of Midwifery, Health Polytechnic of Semarang, Indonesia

Jl. Perintis Kemerdekaan, Magelang, Jawa Tengah, Indonesia

Received: March 31, 2024; Revised: March 06, 2025; Accepted: March 27, 2025

Background. Maternal Mortality Rate (MMR) and Infant Mortality Rate (AKB) are still complicated health problems in many countries globally, including Indonesia. A country's health condition is said to be bad if its maternal and newborn mortality rates are higher. The Infant Mortality Rate (AKB) in Indonesia continues to decline from time to time. By 2030, it is estimated that the RDA rate will reach 15-16 infant deaths per 1000 live births. However, Indonesia has the highest infant mortality rate among other ASEAN countries (SSGI, 2022). Data on the gross mortality rate in 2021 shows that the overall mortality rate, both infant mortality and gross mortality in Temanggung Regency, is still high (Dinkes Temanggung, 2021b). Temanggung sub-district has a population of

83,404 people, the CDR value is 772 people.

Of the entire population of newborns under 6 months who were recalled in 2020, the vast majority, about 66.1% or 2,113,564 babies were exclusively breastfed. Statistics assessing the percentage of babies under 6 months who are exclusively breastfed effectively achieve the target of 40% set by 2020 (Kementerian Kesehatan Republik Indonesia, 2021).

The percentage of infants under 6 months of age who consume exclusive breastfeeding has reached 69.7%, exceeding the 2021 target of 45%. Of the total provinces, there are 32 provinces that have succeeded in achieving the expected goals, while only 2 provinces have been able to achieve the expected targets. West Papua (21.4%) and

Papua (11.9%), have not yet reached the target. The province with the highest achievement rate is West Nusa Tenggara (86.7%) (Kemenkes RI, 2022). However, SSGI 2021 data shows that around 48% of infants under six months of age are not exclusively breastfed.

Conversely, the rate of exclusive breastfeeding for infants under 6 months in Central Java decreased from 76.30% in 2020 to 72.5% in 2021, showing a decrease compared to the percentage of the previous year (Dinas Kesehatan Provinsi Jawa Tengah, 2021). In 2022, the percentage is projected to increase to 78.71% (Dinkes Jateng, 2022). Based on the Health Profile of Temanggung Regency, the coverage of exclusive breastfeeding in 2019 was 86.0%, which has met the target of 84%. While in 2020 it was 74.01%, still not meeting the target in 2020 which was 80%. In addition, the lowest district in the achievement of exclusive breastfeeding is Kudus Regency at 48.6% and the highest district in the achievement of exclusive breastfeeding for infants aged < 6 months, namely Klaten Regency at 86.3% (Dinkes, 2021).

Data reported by the Tretep Health Center shows that exclusive breastfeeding coverage at the Tretep Health Center in 2019 was 76.30%, while in 2020 it only increased by 1.7% to 77.70% (Dinkes Temanggung, 2021a). In 2021, the Tlogomulyo Health Center of Temanggung Regency achieved an exclusive breastfeeding coverage rate of 78.03%. However, this is still far from the target set by the Temanggung Regency Health Office, which is 80%. The coverage of breast milk at the Tretep Health Center is still lower than that of the Tlogomulyo Health Center.

Breast milk, also known as breast milk or human lactation, is an optimal and complete source of nutrition for babies during the first six months of development, so the need for additional drinks or solid foods is no longer necessary. The main consequence of not breastfeeding infants is mostly related to the nutritional aspect, which specifically accounts for 53% of the overall impact. Malnutrition can lead to the development of various diseases, such as pneumonia (20%), diarrhea (15%), and neonatal complications (23%). In addition, it can also cause obesity in young children. The obesity rate reached 11.8%.

The composition of breast milk is determined by various factors, such as the stage of lactation, ethnicity, nutritional status, and food intake of the mother. Sequential phases of breast milk production include colostrum, transitional breast milk, and mature breast milk. Common problems experienced by postpartum mothers include the lack of exclusive breastfeeding, resulting in insufficient breast milk intake, causing discomfort when breastfeeding, frequent bowel movements, increasingly fussy babies, and discomfort and fullness in the breasts (Mas'adah, 2019). The diet of nursing mothers is one of the determinants of milk production. Insufficient intake of maternal nutrients can interfere with the function of milk-producing glands in her breasts, causing a decrease in milk production. Breastfeeding mothers need help in increasing the effectiveness of the breastfeeding process, one way is to consume foods that can increase lactation (Dini et al., 2023). Approaches to increasing breast milk production involve increasing the nutritional value of foods that have a direct impact on breast milk production, such as mung bean juice and kidney bean juice.

Green beans scientifically known as *Phaseolus radiatus* and popularly called mungbean are versatile plants that thrive in various regions in Indonesia. Green beans, in the amount of 100 grams, provide 124 mg of calcium and 326 mg of useful phosphorus, which contributes to the strengthening of the skeletal structure. A diet that includes protein levels between 19.7% to 24.2% and iron levels between 5.9% to 7.8% can optimize breast milk production. Green beans have a high nutritional value and a complete composition. Protein is the second largest component, after carbohydrates, by quantity. Green beans have a protein content ranging from 20% to 25%. Mothers need adequate amounts of protein, especially protein rich in amino acids, to increase milk production during breastfeeding. Green beans contain bioactive substances, especially polyphenols and flavonoids that can increase the production of the hormone prolactin. When prolactin levels increase, breast milk production reaches its peak, resulting in an increase in both the quantity and nutrient content of breast milk. The nutritional content of green bean juice will also contribute to the overall nutritional value of breast milk

(Suskesty, 2017). Protein derived from green beans is rich in amino acids leucine, arginine, isoleucine, valine, and lysine. Green beans contain the following percentages of amino acids: isoleucine (6.95%), leucine (12.90%), lysine (7.94%), methionine (0.84%), phenylalanine (7.07%), threonine (4.5%), valine (4.15%), arginine (4.4%), aspartic acid (12.10%), glutamic acid (17%), glycine (4.03%), tryptophan (1.35%), and tyrosine (3.86%).

The findings of a study conducted by Irmawati (2022) revealed that giving mung bean juice to postpartum mothers resulted in an increase in breast milk production. The study involved 15 participants who were given green bean juice. Among them, 13 participants (86.7%) experienced smooth milk production, while 2 participants (13.3%) experienced difficulties in milk production. Therefore, it can be concluded that the intake of green bean juice has a significant influence on the smooth production of breast milk in puerperal mothers. According to research conducted (Dini et al., 2023) research findings show that groups that consume soy milk show more effectiveness than groups that consume green bean juice. Soy milk is rich in protein, fat, calcium, phosphorus, and vitamin B1 compared to green beans. Regular consumption of these nutrients can increase milk supply in nursing mothers.

In addition, red beans have properties to increase lactation. Red beans are one type of beans with a protein content of 23.1 grams, carbohydrate content of 59.5 grams, and fat content of 1.7 grams. Protein is the second most important element after carbohydrates. Red beans are highly nutritious foods, rich in energy and vegetable protein. The protein content in kidney beans is 22.3 g per 100 g of kidney beans, comparable to the protein content in green beans. But green beans are more often known as a source of protein. Red beans have unique benefits that are not found in animal protein. Red beans are rich in folic acid, calcium, complex carbohydrates and natural fiber. The protein composition of kidney beans includes faseolin with a concentration of 20% dry weight, faseoline 2, and confasoline ranging from 0.36 to 0.40. The amino acid composition of kidney beans exceeds cow's milk (dr.Ir.Feri Kusnandar, 2019). Red beans have the following amino acid counts: Isoleucine 41.92, leucine 76.16,

lysine 72.00, methionine 10.56, cysteine 8.48, phenylalanine 53.16, tyrosine 25.28, threonine 39.68, tryptophan 10.08, valine 45.92, arginine 56.8 0, histidine 28.32, and alanine 52.16.

Red beans have advantages that are not found in animal protein. Red beans provide high concentrations of folic acid, calcium, complex carbohydrates, and natural fiber. The nutritional value of Leguminoceae, namely kidney beans, is very beneficial because it is an excellent source of nutrients to improve health. Isoflavones are one type of secondary metabolite chemicals that can be found in legume plants (Primiani et al., 2014). Isoflavones, also known as phytoestrogen hormones, are endogenous estrogen hormones that can increase lactation by stimulating the mammary glands in breastfeeding women. The presence of protein and essential amino acids in kidney beans stimulates the alveoli that play an active role in the formation of breast milk. This stimulation causes an increase in the hormones oxytocin and prolactin, and oxytocin specifically contributes to an increase in the volume of breast milk production (Fitriana et al., 2022).

Breast milk, which is often referred to as breast milk, is the optimal supply of nutrients for babies before they are able to eat solid food. After childbirth, the hormones prolactin and oxytocin stimulate milk production. The initial output of breast milk is called colostrum, which is rich in IgA immunoglobulin which functions to protect the baby's body from infectious diseases (Fitriana et al., 2022). Breastfeeding provides benefits for both the baby and the mother. Exclusively breastfed infants experienced a significant reduction in the risk of death from diarrhea with a decrease of 3.9 times, and a decrease in the incidence of Upper Respiratory Tract Infection (ARI) by 2.4 times. Breastfed babies had a 25-fold reduced chance of death in the first month after birth, compared with babies fed other foods. Based on completed research shows that babies can reduce the chances of developing ear infections, food allergies, anemia, and obesity later in life. In addition, mothers can also feel benefits such as prevention of postpartum bleeding, anemia, and breast cancer.

Based on the explanation above, if milk production is less it will affect the growth and

development of babies including brain intelligence. An effective method to increase breast milk production is to supplement the diet of postpartum mothers with red beans, which are rich in protein and essential amino acids. These nutrients help activate the hormones oxytocin and prolactin. Green beans contain bioactive ingredients, especially polyphenols and flavonoids, which have the potential to increase the secretion of the hormone prolactin. Increased levels of the hormone prolactin stimulate optimal lactation, thereby increasing milk production. In addition to these products, red beans and green beans are also widely available and affordable.

The findings of a preliminary study conducted in May 2023 at the Tretep Health Center involved questionnaires given to 10 postpartum mothers. This questionnaire aims to assess the ease of breastfeeding in these mothers. The results showed that 7 out of 10 postpartum mothers (70%) had difficulty in breastfeeding, while 3 out of 10 mothers (30%) reported smooth milk flow. The non-smoothness of breast milk production will have an impact on fulfilling the nutritional coverage of inadequate infants. In addition, during interviews, individuals expressed greater confidence in consuming mung bean juice because they were familiar with the juice. But please note that the Tretep region also has many red bean plants that have higher levels of important amino acids than green beans. This amino acid is known to increase breast milk production. Therefore, the author is interested in conducting research on "The Effectiveness of Giving Red Bean Juice and Green Bean Juice on the Adequacy of Breast Milk Production in Post Partum Mothers".

Methods. This research design uses a quasi-experimental approach, which involves the application of treatment, measurement of its effects, and examination of experimental units to conclude changes caused by the treatment (Syapitri, 2021). The research design used was Two Group Design Posttest Only, consisting of two groups where each group was given a different intervention.

This study manipulated the independent variable by giving red bean juice and mung bean juice. The focus variable in this study is the degree of adequacy of milk production. The study population amounted to 42 postpartum mothers selected from the Tretep Health

Center Working Area, Temanggung Regency. The selection criteria are pregnant women with an estimated delivery date between September and November 2023, who are expected to give birth normally. Based on Frederer's formula, the number of sample formulas obtained is 32 puerperal mothers. While mothers who have given birth until the end of November as many as 36. But 4 people entered the exclusion criteria because they gave birth SC. Purposive Sampling approach is used to perform sampling or Purposive Sampling.

This research will be carried out at the Tretep Health Center, Temanggung Regency in November 2023. The tools used in this study included observation sheets, questionnaires, food recall, as well as red bean juice and mung bean juice.

The Shapiro-Wilk test was used to perform the normality test because of the small sample size of 36 respondents. If the p-value of the normality test is less than 0.05, it means that the data is not normally distributed. Univariate analysis is displayed through the use of frequency and percentage. In this study, bivariate analysis was performed on paired samples using the Wilcoxon test because the distribution of data was abnormal. Similarly, unpaired samples were analyzed using the Mann Whitney test for the same reason.

Result and Discussion.

Adequacy of Breast Milk Production After Postpartum Mothers with Red Bean Juice

Table 4.1 Frequency Distribution of Milk Production Adequacy After Red Bean and Green Bean Juice in Postpartum Mothers

Adequacy of breast milk	F	(%)	Min	Max	Std. Dev
Red Bean					
Not Enough	4	25,0	1	2	0,44
Enough	12	75,0			7
Total	16	100,0			
Green Bean					
Not Enough	10	62,5			0,50
Enough	6	37,5	1	2	0
Total	16	100,0			

Giving red bean juice to postpartum mothers has an impact on the adequacy of milk production. Specifically, 12 people (75%) experienced sufficient milk production, while 4 people (25%) experienced insufficient milk production.

Giving green bean juice to postpartum mothers has an impact on the adequacy of milk production. Specifically, out of a total of 16

respondents, 6 people (37.5%) had sufficient milk production, while 10 people (62.5%) had insufficient milk production

Table 4.2 Overview of Characteristics of Adequacy of Breast Milk Production After Giving Red Bean Juice to Postpartum Mothers

Category	Information	F	(%)
Frequency of Feeding	10 - 12 x	16	100,0
Duration of breastfeeding	≥ 15 minute	12	75,0
BAK	≥ 6 x	16	100,0
BAB	1 - 3 x	16	100,0
Weight	Climb	16	100,00

The adequacy of breast milk production after giving red bean juice to postpartum mothers was shown by the frequency of breastfeeding 10-12 times as many as 16 respondents (100.0%), the duration of breastfeeding ≥ 15 minutes as many as 12 respondents (75.0%), BAK ≥ 6 times as many as 16 respondents (100.0%), BAB 1-3 x as many as 16 respondents (100.0%) and babies who gained weight as many as 16 respondents (100.0%).

The effectiveness of red bean juice in increasing milk production in postpartum mothers is indicated by the following indicators: the frequency of breastfeeding 10-12 times per day was reported by 16 respondents (100.0%), the duration of breastfeeding ≥ 15 minutes was reported by 12 respondents. respondents (75.0%), ≥ 6 urinations were reported by 16 respondents (100.0%), 1-3 urinations were reported by 16 respondents (100.0%), and infant weight gain was observed in 16 respondents (100.0%).

The adequacy of breast milk production after giving red bean juice to postpartum mothers was shown by the frequency of breastfeeding 10-12 times as many as 16 respondents (100.0%), the duration of breastfeeding ≥ 15 minutes as many as 6 respondents (37.5%), BAK ≥ 6 times as many as 16 respondents (100.0%), BAB 1-3 x as many as 16 respondents (100.0%), and babies who gained weight as many as 15 respondents (93.8%).

Red beans have unique benefits that are not found in animal protein. Red beans are rich in folic acid, calcium, complex carbohydrates and natural fiber. The protein composition of kidney beans consists of faseolin which accounts for 20% of dry weight, as well as faseoline 2 and confaseoline which range from

0.36 to 0.40. The amino acid composition of red beans exceeds cow's milk (Sugianti et al., 2021).

Leguminoceae contained in red beans have high nutritional value and provide a wide range of essential nutrients to maintain excellent health. Isoflavones are one type of secondary metabolite chemicals that can be found in legume plants (Primiani et al., 2014). Isoflavones, also known as phytoestrogen hormones, are endogenous estrogen hormones that can increase lactation in nursing mothers by stimulating the mammary glands to produce more breast milk.

In line with Sugianti's research findings, (Sugianti et al., 2021), shows that giving red bean juice has a positive impact on increasing breast milk production. Specifically, out of a total of 20 participants, 15 reported a marked increase in milk production.

Table 4.3 Overview of Characteristics of Breast Milk Adequacy After Giving Green Bean Juice to Postpartum Mothers

Category	Information	F	(%)
Frequency of Feeding	10 - 12 x	16	100,0
Duration of breastfeeding	≥ 15 minute	6	37,5
BAK	≥ 6 x	16	100,0
BAB	1 - 3 x	16	100,0
Weight	Climb	15	93,8

The adequacy of breast milk production after giving mung bean extract to postpartum mothers was shown by the frequency of breastfeeding reported 10-12 times by 16 respondents (100.0%). The duration of breastfeeding ≥ 15 minutes as many as 6 respondents (37.5%). The frequency of urination (≥ 6 times) was reported by 16 respondents (100.0%). The frequency of bowel movements (1-3 times) was reported by 16 respondents (100.0%). In addition, 15 respondents (93.8%) reported that their babies gained weight.

Green beans have quite a lot of nutrients and a complete composition. Protein is the second most abundant component after carbohydrates in terms of quantity. Green beans have a protein content ranging from 20% to 25%. Mothers need large amounts of protein while breastfeeding, especially proteins rich in amino acids, to increase milk production. Green beans are rich in bioactive compounds, especially polyphenols and flavonoids, which have the ability to increase the secretion of the

hormone prolactin. Increasing prolactin levels will cause maximum breast milk production so that there is an increase in both volume and nutritional content in green bean juice (Putri & Arla, 2023).

Green beans, in a portion of 100 grams, provide 124 mg of calcium and 326 mg of phosphorus, which contribute to the strengthening of the skeletal structure. According to (Wulandari & Jannah, 2019), breast milk production can be maximized by consuming protein levels ranging from 19.7% to 24.2% and iron levels ranging from 5.9% to 7.8%. Green beans contain bioactive substances, especially polyphenols and flavonoids that can increase the production of the hormone prolactin. Increased levels of the hormone prolactin cause an increase in breast milk production (Handayani & Sugiarsih, 2023).

This finding is corroborated by research conducted by (Sufiani et al., 2022) which showed that giving mung bean juice can significantly increase breast milk production ($p = 0.000$). (Putri & Arla, 2023) research shows the impact of mung bean porridge on the adequacy of breast milk (ASI) in postpartum mothers. The average nutritional adequacy of breast milk before giving mung bean porridge to postpartum mothers is 5.20 times higher than the average. The average adequacy of breast milk as measured by the baby's BAK increased by 11.90 times after postpartum mothers consumed mung bean porridge.

The Effectiveness of Giving Red Bean Juice and Green Bean Juice on the Adequacy of Breast Milk in Postpartum Mothers

Table 4.4 The Effectiveness of Red Bean Juice and Green Bean Juice on Breast Milk Adequacy in Postpartum Mothers

Group Categories	Mean Rank	p value
Giving red bean juice	19,5	0,035
Giving mung bean juice	13,5	

Analysis of the data using the Mann Whitney test showed significant differences between the two groups. The p-value obtained at 0.035 is less than the predetermined significance level of 0.05, thus indicating a statistically significant effect. The average adequacy of breast milk after giving red bean juice was 19.5, while the average adequacy of breast milk after giving mung bean juice was 13.5. Therefore, it can be concluded that giving

red bean juice is more efficacious in increasing the adequacy of breast milk compared to giving green bean juice.

Because green beans have the third highest protein content after soybeans and kidney beans. Green beans have a protein content of about 21.04 grams per 100 grams. Red beans have higher protein levels than green beans, precisely 22.3 g per 100 g of red beans. In addition, red beans also have advantages that are not found in animal protein. Red beans are rich in folic acid, calcium, complex carbohydrates and natural fiber. The protein composition of red beans consists of faseolin which accounts for 20% of dry weight, as well as faseoline 2 and confaseoline which have a concentration range of 0.36-0.40. Red beans have a higher amino acid composition than cow's milk (dr.Ir.Feri Kusnandar, 2019).

Eating nuts can help regulate and maintain milk production in nursing mothers. (Permatasari & Indrawati, 2022) conducted a study that showed that mothers who regularly consumed nuts from pregnancy to childbirth showed a twofold increase in milk production and denser consistency than mothers who did not regularly consume nuts during that time period. Based on the recommended Daily Value (RDA), breastfeeding mothers should increase their daily protein intake by 20 grams during the first 6 months, and as much as 15 grams in the following 6 months. Therefore, red beans can serve as an additional source of protein for nursing mothers. Nevertheless, a small percentage of people take full advantage of the potential of kidney beans as a valuable source of plant-based protein.

The research findings of (Dini et al., 2023) support the conclusion that there is a significant difference in the effectiveness of soy milk and mung bean juice shown by Mann Whitney's analysis with a significance level of 0.046 which means smaller than 0.05. The findings showed that soy milk was superior to mung bean juice in terms of effectiveness.

Conclusion and Suggestions.

Postpartum mothers who have been given red bean juice 12 people (75%) have sufficient milk production and 4 people (25%) are not enough. Postpartum mothers who have been given mung bean juice whose milk production is sufficient 6 respondents (37.5%) and not enough 10 respondents (62.5%). The effectiveness of giving red bean juice and

green bean juice in increasing adequate milk production in puerperal mothers. Data analysis using the Mann Whitney test yielded a p-value of 0.035, below the predetermined significance level of 0.05. The average adequacy of breast milk after consumption of red bean juice was 19.5, while the average adequacy of breast milk after consumption of green bean juice was 13.5. Thus, it can be concluded that giving red bean juice is more effective in increasing the adequacy of breast milk compared to giving green bean juice.

Acknowledgements I would like to express my deepest gratitude to the supervisor who has provided guidance during the preparation of this thesis, to my family who have provided both moral and material support, as well as to all fellow students of the Magelang Midwifery Applied Bachelor Study Program IBI Temanggung Cooperation Level Transfer Class of the Semarang Ministry of Health who have encouraged me.

References

- Dinas Kesehatan Provinsi Jawa Tengah. (2021). *Profil Kesehatan Jawa Tengah Tahun 2021*. Dinas Kesehatan Provinsi Jawa Tengah.
- Dini, P. R., Mayangsa, D., & Husada. (2023). Efektifitas Pemberian Susu Kedelai dan Juice Kacang Hijau terhadap Produksi ASI pada Ibu Nifas. *Jurnal Ilmu Kesehatan Mandira Cendikia*, 2(7), 87–95.
- Dinkes Jateng. (2022). *LKJIP Dinkes Jawa Tengah Tahun 2022* (pp. 7823–7830). Dinas Kesehatan Jawa Tengah.
- Dinkes Temanggung. (2021a). *DATA POKOK*.
- Dinkes Temanggung. (2021b). Data Pokok Dinas Kesehatan Temanggung. *Data Pokok Dinas Kesehatan*, 64.
- dr.Ir.Feri Kusnandar, M. S. (2019). *Kimia Pangan Komponen Makro* (1st ed.). Sinar Grafika Offset.
- Fitriana, D. N., Ekasari, A., Fahira, L., & Afiera, E. (2022). Pembuatan Snack Bar Tepung Kacang Merah (*Phaseolus Vulgaris* L) dan Kacang Tanah (*Arachis Hypogaea* L) sebagai Alternatif Camilan Pelancar ASI. *Jurnal Mitra Kesehatan*, 5(1).
- Handayani, I. F., & Sugiarsih, U. (2023). Efektivitas Konsumsi Sari Kacang Hijau Terhadap Kelancaran Produksi Air Susu Ibu (ASI). *Jurnal Riset Kesehatan Poltekkes Depkes Bandung*, 15(1).
- Kemenkes RI. (2022). *Profil Kesehatan Indonesia 2021*. In *Pusdatin.Kemenkes.Go.Id*.
- Kementerian Kesehatan Republik Indonesia. (2021). *Laporan Kinerja Kementerian Kesehatan Tahun 2020. Kementerian Kesehatan Republik Indonesia Tahun 2021*, 1–224.
- Mas'adah. (2019). Pengaruh Teknik Marmet Sebagai Upaya Menyusui Efektif pada Postpartum Pimipara. *Jurnal Penelitian Keperawatan*, 5(2).
- Permatasari, M., & Indrawati, V. (2022). tingkat Kesukaan dan Kandungan Gizi Crackers Substitusi Tepung Kacang Merah dengan Penambahan Daun Katuk untuk Ibu Menyusui. *Jurnal Gizi Dan Pangan Soedirman*, 6(1), 19.
- Putri, Z. Z., & Arla, A. S. (2023). Pengaruh Bubur Kacang Hijau Terhadap Kecukupan Air Susu Ibu (ASI). *Jurnal Indragiri Penelitian Multidisiplin*, 3(1).
- SSGI. (2022). *Data Books Kementerian RI*. <https://databoks.katadata.co.id/datapublik/2023/02/03/selain-stunting-ini-deretan-masalah-gizi-yang-kerap-dialami-balita-di-indonesia>
- Sufiani, A., Saleha, S., & Praman, C. (2022). Perbedaan Produksi Air Susu Ibu Melalui Pemberian Ekstrak Sari Kacang Hijau dan Kedelai di Puskesmas Lumpue Kota Pare- Pare. *Sebatik*, 26(1).
- Sugianti, Yani, & Megasari, M. (2021). Pemberian Sari Kacang Merah untuk Memperlancar Produksi ASI di Klinik Pratama Ar- Rabih Kota Pekanbaru Tahun 2021. *Jurnal Kebidanan Terkini*, 2(2), 170–180.
- Syapitri, H. (2021). *Buku Ajar Metodologi Penelitian Kesehatan* (1st ed.). Ahlimedia Press.
- Wulandari, D. T., & Jannah, S. R. (2019). Pengaruh Pemberian Sari Kacang Hijau Pada Ibu Nifas Dengan Kelancaran Produksi ASI. *Jurnal Edu Health*, 5(2), 94–101.