

Original Research Article

EFFECTIVENESS OF HYPNOBREASTFEEDING AND MORINGA LEAF PUDDING ON BREAST MILK PRODUCTION IN PRIMIPARA POSTPARTUM AT RSPKT PRIMA SANGATTAZeny Fatmawati^{1)*}, Naning Hartatik²⁾, Lilis Suryani¹⁾¹⁾Lecture Midwife Professional Education STIKES Husada Jombang²⁾Bachelor of Midwifery Student STIKES Husada Jombang

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ABSTRACT

Introduction. Indonesia's still-high infant mortality rate is evidence that the Sustainable Development Goals have not been met. Babies in Indonesia are at risk of stunting and death due to a lack of breast milk. The polyphenols, alkaloids, and phytosterols found in moringa leaves, including campesterol, β -sitosterol, and stigmasterol, stimulate the formation of breast milk. Examining the effects of Hypnobreastfeeding and Moringa pudding on milk production is the primary goal of this study. **Methods.** The study was quasi-experimental and employed a non-control group design with non-equivalent pre-and post-tests. This kind of study employs purposive sampling. Two groups of thirty-two participants were used in the study; one group received hypnobreast feeding and the other received moringa leaf pudding. The selection of participants was based on inclusion and exclusion criteria. Giving Moringa leaf pudding and the hypnobreastfeeding method were the independent factors in this investigation. Primiparous postpartum women's milk production is the dependent variable in this research. A paired T-test is used as the statistical test. **Results & Analysis.** On the other hand, Both the first and second groups had breast milk production levels between 25 and 150 ml before receiving the hypnobreastfeeding intervention and Moringa leaf pudding; following treatment, these levels rose to above 150 ml. of the paired t-test for both groups showed a p-value of 0.001, where the p-value was <0.05 . **Discussion.** First-time postpartum moms at RSPKT Prima Sangatta who participated in hypnobreastfeeding and received moringa leaf pudding had a statistically significant increase in their milk supply.

Keywords: Breast Milk, Hypnobreastfeeding, Moringa Pudding,**INTRODUCTION**

The ideal nutritional content for a baby's development is found in mother's milk, which is why it is provided to newborns until they are six months old. Breast milk helps a baby's immune system build-up, which in turn allows for healthy growth and development. Babies are breastfed exclusively during the first six months of their lives, without any added or substituted meals or beverages.

Because it supplies protein for the body's resistance and is beneficial for destroying germs in great amounts, colostrum, which is a part of breast milk, is rich in antibodies. This means that newborns may lower their risk of mortality by exclusively nursing.

The majority of moms do not breastfeed their newborns exclusively after giving birth. This is mainly because of the psychological and physiological

changes that occur in mothers after giving birth, particularly in first-time mothers. When a woman gives birth to her first child, she is known as a primiparous mother. Because this is a first for the mother, the hormones estrogen, progesterone, prolactin, and estriol all fluctuate after giving birth, creating an imbalance that impacts her mood. (Azizah, 2021).

Babies who do not get breast milk exclusively are at increased risk for malnutrition, obesity, and later-in-life chronic disorders including heart disease, hypertension, and diabetes. Breast cancer is a real possibility for mothers, and medical expenses will skyrocket in the event that either the mother or the infant contracts an illness. At the same time, there are more dangers associated with substituting formula for breast milk, such as the high cost of the product, the possibility of allergic reactions in the infant, and the fact that it lacks the entire nutritional profile of breast milk (Devy, 2019).

Hypnobreastfeeding helps mothers relax by programming their subconscious minds with pleasant mantras that encourage them to breastfeed their babies adequately. While relaxed or under hypnosis, it is possible to implant positive affirmation words into one's head, which may help bring about sentiments of love and affection for the baby. People who breastfeed often find that positive affirmations make a difference. The body's endocrine system, blood flow, neurological system, and other systems all benefit from frequent, deep relaxation. The chemicals endorphins and oxytocin are responsible for increasing the amount of breast milk produced by a breastfeeding mother, and they are both increased when the mother relaxes during nursing.

The lactagogum effect refers to the increased production of breast milk by means of the phytosterol components found in moringa leaves. The lactagogum effect is shown by sterols and other

similar compounds. Some chemicals that belong to the steroid category are sterols. Neurohormonal stimulation in the mother's nipple and areola triggers the hormonal prolactin reaction, which in turn produces breast milk, while the infant feeds on the mother's nipple. Following its transmission to the anterior lobe, this stimulation reaches the pituitary gland by the vagus nerve. The glands responsible for producing breast milk are reached by the hormone prolactin, which is produced from this lobe and enters the circulation. To make breast milk, this gland will be stimulated.

Mothers who are nursing may find that eating pudding made from moringa leaves helps them produce more milk. The phytosterol components found in moringa leaves may help the body produce more breast milk. Phytosterols have the ability to enhance milk production by directly stimulating the secretory cells of the mammary glands. The oestrogen hormone is manufactured from these phytosterol molecules. An increase in estrogen levels may promote milk production by increasing the number of mammary glands (Citra Rani et al., 2019). Studying the effects of Hypnobreastfeeding and Moringa leaf pudding on milk production in first-time postpartum moms is the primary goal of this study.

METHOD AND ANALYSIS

This study lacks a control group and used a quasi-experimental design with non-equivalent pre- and post-tests. Women who gave birth at RSPKT Prima Sangatta were the subjects of this research. This method of sampling relied on purposive sampling, which is a kind of non-probability sampling. Thirty women met the inclusion and exclusion criteria for the study, and they were split into two groups: one received Moringa leaf pudding twice a week, and the other received hypnobreastfeeding, a relaxation technique that involved positive

affirmations were given to postpartum primipara mothers for fifteen minutes to help them feel calm and confident. Two hundred and fifty grams of Moringa leaves are used to make this pudding, which also includes agar-agar, sweetened condensed milk, coconut milk, pandan, and vanilla. Dosage is twice daily. on Monday Hypnobreastfeeding and the administration of Moringa leaf pudding serve as the independent factors in this study. Breast milk production by postpartum primipara mothers is the dependent variable in this study. This is defined as the total amount of milk produced by postpartum primipara mothers who pump their milk using a breast pump, whether it's an electric or manual model.

RESULT

Table 1. Factor Distribution Among RSPKT Prima Sangatta Respondents Who Had a Primiparous Child After Giving Birth

Criteria	Amount		Percentage	
	N	%	N	%
Age (Years)				
<20	3	18.8	3	18.8
20-35	11	68.8	10	52.5
>35	2	12.5	3	18.8
Amount	16	100	16	100

Among those who participated, 62.5% fall within the reproductive age bracket of 20–35 (Table 1).

Table 2. Respondent Characteristics at RSPKT Prima Sangatta, August 2023, Based on Breast Milk Production of Postpartum Primiparous Mothers

Total Breast Milk Production	Amount		percentage	
	N	%	N	%
(Pre Intervention)				
Good (>150 ml)	0	0	0	0
Enough (25-150 ml)	2	75	11	68.8
Less (<25 ml)		25	5	31.2
Amount	16	100	16	100

Total Breast Milk Production	Amount		percentage	
	N	%	N	%
(Post Intervention)				
Good (>150 ml)	8	50	6	37.5
Enough (25-150 ml)	8	50	10	62.5
Less (<25 ml)	0	0	0	0
Amount	16	100	16	100

Breast milk production rose from 25-150 ml previous to receiving the hypnobreastfeeding intervention and Moringa leaf pudding, as shown in Table 2. The therapy resulted in a production of more than 150 ml.

Table 3. Comparing the Means of Two Groups of Primiparous Postpartum Mothers at RSPKT Prima Sangatta in August 2023

Intervention	Mean±SD Pre intervention	Mean±SD Post intervention	P
First group	64.06±34.361	130.62±57.557	0.001
Second group	57.50±35.118	130.00±42.895	0.001

Table 3 displays the statistical findings, which reveal a p-value of 0.001 for the first group. People already know that 0.001 is less than 0.05. At RSPKT Prima Sangatta, we found that hypnobreastfeeding significantly increased milk supply in primiparous postpartum moms. The second group similarly achieved a p-value of 0.001, which is less than 0.05. The results show that providing primiparous postpartum women at RSPKT Prima Sangatta Moringa leaf pudding significantly increases their milk supply.

DISCUSSION

1. Hypnobreastfeeding and Breast Milk Production

We can conclude that Hypnobreastfeeding has a significant impact on breast milk production in primiparous postpartum mothers at RSPKT Prima Sangatta, as the paired sample t-test statistical test in group 1 yielded a p value of total breast milk production = $0.001 < \alpha = 0.05$. Pratiwi (2018) found that hypnobreastfeeding significantly affects nursing women' milk production, which is in agreement with our findings. This is due to the fact that hypnobreastfeeding can enhance milk production by causing the mother to feel more relaxed, calm, and at ease while nursing, which in turn increases the body's response to the pituitary gland's release of oxytocin and prolactin.

In order to stimulate the secretory cells of the alveoli to synthesize milk, the hormone prolactin is involved. At the same time, oxytocin triggers milk ejection by contracting the myoepithelium around the alveoli. Roslinawati (2020) found similar results in her research of breastfeeding at the Banjarmasin Community Health Center, which found that hypnobreastfeeding significantly increased milk supply.

Hypnobreastfeeding helps nursing moms achieve emotional and psychological stability by increasing prolactin and oxytocin stimulation by brain stimulation, which is different from how these hormones are normally stimulated. In 2021, Delima Harahap found that hypnobreastfeeding significantly increased milk production at the Atikah midwife's independent practice. This was due to the fact that positive affirmations helped mothers feel more relaxed and confident, which in turn improved their ability to breastfeed. The aforementioned studies corroborate this finding. Theoretically, the goal of the hypnobreastfeeding relaxation technique is to help mothers feel more confident when nursing their babies exclusively by guiding their subconscious with positive affirmations that will help them overcome anxiety, fear, and stress. The mother's hormone levels are influenced by her emotional state, namely her degree of calmness and confidence. The pituitary gland, which is responsible for producing the hormones prolactin and oxytocin, is one of the glands that helps regulate hormones. Two secretions from the hypothalamus, prolactin inhibiting hormone and prolactin releasing hormone, regulate the release of prolactin by the anterior pituitary gland. Breast milk is secreted and synthesized by the alveolar epithelial cells, which are stimulated by the hormone prolactin. When prolactin attaches to certain receptors on the surface of breast epithelial cell membrane, it triggers the onset of lactogenesis. Two

domains, one exterior and one interior, make up this receptor. According to Hutabarat and Sihombing (2021), the term "hypnobreastfeeding" is derived from the Greek terms "hypnos" and "breast" combined. A Greek term meaning "sleep mind," hypnos has an ancient origin. The act of nursing a baby is known as breastfeeding. So, according to Farida et al. (2023), hypnobreastfeeding is an attempt to naturally harness subconscious energy to make nursing easier and more comfortable for the mother and to ensure that she produces enough milk for the baby's development and growth. When a woman is in a hypnotic state—a condition of deep relaxation or intense focus—she might enter positive affirmation words that aid in nursing (Laily et al., 2021). Increasing milk supply and flow is the most obvious advantage of hypnobreastfeeding. But there are other advantages, including helping the parents relax more, which makes for a more peaceful home and a better environment for the infant. Hypnobreastfeeding helps moms feel better about themselves and their roles as parents by lowering their stress and anxiety levels, which in turn increases milk supply. It also helps moms concentrate on the positive by eliminating fears and worries. Sentences that promote good self-talk for nursing moms include: The mother's state of mind is improving; her cells, organs, and hormones are all in harmony; her milk supply is sufficient to meet her baby's demands; the flow of her milk is easy; and her child develops normally and intelligently, physically and psychologically. According to Hedriyani et al. (2019), whenever a newborn sucks on a breast, it triggers the production of prolactin by the front pituitary gland via the sensory nerve endings around the breast. The secretory cells in the alveolus (the "breast milk factory") will release milk when prolactin enters the circulation and reaches the breast. Sucking on prolactin keeps it in the bloodstream for 30 minutes, so it might encourage the

breasts to make milk for the next feeding. Regarding the present beverage, the infant consumes the breast milk that is already present. More milk is produced when the lactiferous sinus releases more milk. So, the rule of thumb is that milk production increases as the infant suckles more often. However, the breast can only produce so much milk when the infant sucks less often. When a baby quits sucking, the milk production in the breasts ceases as well. Because prolactin production often occurs throughout the night, nursing at this time may help keep milk production steady. Since prolactin inhibits ovulation, the process by which the ovaries release eggs, returning to menstruation and fertility will be slowed down by exclusive nursing. Thus, it is crucial to nurse at night in order to postpone having a child (Bruno Tongun et al., 2018). The anterior pituitary gland is responsible for producing the peptide hormone known as prolactin (Freeman et al., 2000). The production of milk is initiated and maintained by the hormone prolactin (Ni et al., 2021). According to Jurek and Neumann (2018), when the baby's suction stimulates the nipple's receptors, it sends signals to the brain via the vagus nerve. The secretion of prolactin by the anterior pituitary gland is triggered by signals from the brain, which in turn encourage the mammary alveoli to produce milk (Rezaei et al., 2016). After the first three months after giving birth, a mother's prolactin levels will return to normal. Once her kid begins to wean, her prolactin levels will remain stable, even though her milk supply will continue unabated (Athonvarangkul & Wysolmerski, 2023).

2. Moringa Leaf Pudding and Breast Milk Production

The mean difference and standard deviation in the quantity of breast milk production of postpartum primiparous moms in the second group administered Moringa leaf pudding at RSPKT Prima Sangatta were 72.50 ± 16.124 , according to the analysis. The results demonstrate

that the administration of Moringa leaf pudding significantly alters the quantity of breast milk produced compared to the pre- and post-tests. It can be concluded that giving Moringa leaf pudding to primiparous postpartum mothers at RSPKT Prima Sangatta significantly affects their breast milk production, according to the research results obtained through the paired sample t-test statistical test in the second group, where the p value was the amount of milk production = $0.001 < \alpha = 0.05$. Previous research conducted by Salsabila in 2019 found that giving nursing moms Moringa leaves significantly increased the amount of milk they produced. at the Sekaran Community Health Center's operational space in Semarang. The reason for this is because the lactagogum found in abundance in Moringa leaves has the ability to increase the production of prolactin and oxytocin.

The immune-boosting vitamins A, C, E, and B are abundant in moringa leaves, along with complete proteins (including all nine necessary amino acids), minerals (calcium, iron, potassium, magnesium, zinc), and a host of other nutrients. Vitamin A content is 3390 SI per 100g, which is 30 times more than chickpeas and double that of spinach. In addition to having a high calcium content (440 mg/100 g), phosphorus content (70 mg/100 g), iron content (5.49 mg/100 g), sitosterol content (1.15 %), and stigmaterol concentration (1.52% / 100 g), the nutritional composition of Moringa leaves is exceptional. the primary measure of success in preventing or treating maternal malnutrition (Rasniah S.2022)

Another research conducted by Indri Pratiwi (2020) revealed that the phytosterols found in abundance in Moringa leaves—including stigmaterol, sitosterol, and kompesterol—increase the body's synthesis of prolactin and oxytocin, two hormones that may stimulate the ducts of the mammary glands to create milk. The above research is in line with the latest research conducted by Hasbiah

& Mirna in 2023 It demonstrates that the Kassi-Kassi Health Center in Makassar found that postpartum moms who took Moringa leaf extract had an increase in breast milk supply. Capsules made from Moringa leaves include lactagogum components, which are made from chemicals like phytosterol and sitosterol, and they help with breast milk production. Stigmaterol, campesterol, and B-sitosterol are phytosterols.

The lactagogum compounds found in Moringa leaf pudding, which are derived from phytosterol substances like compesterol, stigmaterol, and B-sitosterol, can stimulate the secretory cells of the mammary glands to increase prolactin levels in the serum. This, in turn, stimulates the alveolar epithelial cells to produce more breast milk. In addition to boosting prolactin production, the polyphenol and flavonoid content of Moringa may block dopamine receptors. Trigoneline, an alkaloid found in moringa leaves, has a synergistic effect with the hormone oxytocin. Therefore, nursing moms who eat Moringa leaf pudding will have more milk to pump out (Sukmawati, 2019).

CONCLUSION

It can be inferred that hypnobreastfeeding has a significant impact on the breast milk production of primiparous postpartum women at RSPKT Prima Sangatta, as there was a significant difference in the amount of milk produced before and after the intervention in group one, with a mean difference and standard deviation value of 65.31 ± 28.075 .

Group two's breast milk production levels were significantly different before and after the administration of Moringa leaf pudding, with a mean difference and standard deviation value of 72.50 ± 16.124 . Therefore, it can be inferred that the administration of Moringa leaf pudding

had a notable impact on breast milk production.

The findings of this study have the potential to enhance midwifery care services for new mothers in the postpartum and nursing years. Additionally, they may be used to incorporate research findings into lactation counselor courses and improve community services.

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