

Effectiveness of Fenugreek Seed on Breast Milk Production among Postnatal Women in Selected Hospitals of Sangli, Miraj, and Kupwad Corporation Area.”

Sana Raju Nadaf¹, Archana Rohit Dhanawade^{2*}, Asha Naykawadi³, Tejaswini E. Chougule⁴, Shaila Mathew⁵, Shefali Daruwala⁶, Nikita Bhandari⁷

¹M.Sc. Nursing, Bharati Vidyapeeth (Deemed to be University), College of Nursing, Sangli.

^{2*}Assistant Professor, B.V.D.U. CON, Sangli. Email: adhanawade9@gmail.com (Corresponding Author)

³Clinical Instructor, Bharati Vidyapeeth (Deemed to be University), College of Nursing, Sangli.

⁴Clinical Instructor, Bharati Vidyapeeth (Deemed to be University), College of Nursing, Sangli.

⁵Assistant Professor, Bharati Vidyapeeth (Deemed to be University), College of Nursing, Sangli.

⁶Clinical Instructor, Bharati Vidyapeeth (Deemed to be University), College of Nursing, Sangli.

⁷Clinical Instructor, Bharati Vidyapeeth (Deemed to be University), College of Nursing, Sangli.

Corresponding Author - Archana Rohit Dhanawade ²Assit. Professor, B.V.D.U. CON, Sangli.

Email – adhanawade9@gmail.com

Abstract:

As per the World Health Organization (WHO) and UNICEF, around 1.5 million infants die annually due to the absence of breastfeeding. Many more suffer from malnutrition and infectious diseases, limiting their growth potential due to bottle-feeding. Objectives were to assess the breastmilk before the consumption of fenugreek seed in experimental and control group., to assess the breastmilk after the consumption of fenugreek seeds in experimental and control group, to compare the post-tests among the experimental and control groups. Materials and Methods-Research Design is used A quasi-experimental pre-test–post-test control group design was adopted for the study. A total 60 breastfeeding mothers were selected using a purposive sampling technique. A structured observational check list is used as a tool. Content validity of the tool was established by a panel of 22 experts from relevant fields. Necessary modifications were made based on their suggestions, and the final tool was prepared. The reliability of the tool was assessed using the inter -rated method. The reliability coefficient (r) was calculated using Karl Pearson’s correlation formula and was found to be 0.97, indicating high reliability of the instrument. Results: Pre-test findings showed that mean was 4.3, while Post-test results revealed significant improvement with mean 11.56. Conclusion: The results suggest that consumption of fenugreek seed is effective in breastfeeding outcomes.

Keywords: fenugreek seed, breast milk

How to cite this article: Nadaf SR, Dhanawade AR, Naykawadi A, Chougule TE, Mathew S, Daruwala S, Bhandari N. Effectiveness of Fenugreek Seed on Breast Milk Production among Postnatal Women in Selected Hospitals of Sangli, Miraj, and Kupwad Corporation Area. *Int J Drug Deliv Technol.* 2026;16(64s):1495-1498. DOI: 10.25258/ijddt.16.64s.159

Introduction

Breastfeeding can be one of the most rewarding and meaningful experiences in a mother’s life. ¹ However, when a baby continues to cry and seems hungry despite prolonged nursing, those positive emotions can shift to feelings of frustration. Although the majority of mothers naturally produce enough milk—and often more than what is required for their infants—certain situations may lead them to seek ways to enhance milk production. In such instances, natural remedies like fenugreek seeds may offer potential benefits. ² Breast milk is widely recognized as the ideal and most complete source of nutrition for infants during their first year of life. It provides all essential nutrients required during the initial six months and adapts to meet the baby’s developmental needs. ³ In addition to supporting healthy weight gain, breastfeeding plays a protective role against childhood obesity. When lactation fails due to insufficient milk production or poor breastfeeding, it can result in health complications during the new-born period. The risk of death and disease is significantly higher among infants who are not breastfed compared to those who are on breastfeeding. ⁴ Often referred to as “liquid gold,” breast milk is a yellowish fluid rich in immune-boosting antibodies such as IgA, IgG, and IgM. It contains

essential cells and hormones that defend against infections. Notably, it is a simple, non-invasive option for umbilical cord care. Studies show that it facilitates quicker umbilical separation owing to its polymorph nuclear leukocyte content. Compared to antiseptic treatments, neonates cared for with human milk showed faster umbilical healing. Breast milk is also traditionally used as a home remedy for ailments such as conjunctivitis, insect bites, dermatitis, infected wounds, burns, and abrasions.⁵

Materials and Methods

Ethical Considerations

Institutional Ethics Committee (IEC) approval was obtained from Bharati Vidyapeeth (Deemed to be University) College of Nursing, Sangli. Hospital HOD permissions, informed written consent (English/Marathi), and confidentiality via code numbers were upheld; data used solely for research. Voluntary participation and the right to withdraw were emphasized.

Research Approach

This study adopted a quantitative research approach to systematically investigate

Research Design

Quasi-experimental pre-test–post-test control group design

Sample and Sampling Technique

Sample size: 60 post-natal mothers.

Effectiveness of Fenugreek Seed on Breast Milk Production among Postnatal Women in Selected Hospitals of Sangli, Miraj, and Kupwad Corporation Area.”

Sampling method: purposive sampling

Tool

Section 1- demographic variables

Section 2- Structured observational check list is used to collect the data.

Content validity established by 22 experts

Reliability: Test–retest method ($r = 0.97$)

Pilot Study

A pilot study was conducted at post natal ward of maternity home miraj.

Results:

SECTION - I

TABLE NO 1
Frequency And Percentage Distribution Of
Demographic Data

n=60

V ar ia bl e	C at e g o r y	Experi ntal Group		Control group	
		Fr e q u e n c y	%	Fr e q u e n c y	%
A g e in Y e a r s (P o s t n a t a l w o m e n)	1 8 - 2 0	1 9	6 3 %	5	1 7 %
	2 1 - 3 0	6	2 0 %	2 0	6 7 %
	3 1 - 4 0	5	1 7 %	5	1 7 %
P a r i t y	P r i m i p a r a	2 0	6 7 %	2 3	7 7 %
	M u l t i p a r a	1 0	3 3 %	7	2 3 %

E d u c a t i o n	p r i m a r y	0	0 %	1	3 %
	s e c o n d a r y	1 9	6 3 %	2 0	6 7 %
	g r a d u a t e	1 1	3 7 %	9	3 0 %
M o d e o f D e l i v e r y	N o r m a l	1 1	3 7 %	2 5	8 3 %
	L S C S	1 9	6 3 %	5	1 7 %
G e n d e r o f t h e n e o n a t e	M a l e	1 9	6 3 %	1 6	5 3 %
	F e m a l e	1 1	3 7 %	1 4	4 7 %
B i r t h w e i g h t o f t h e n e o n	2 - 2.5 k g	1 0	3 3 %	7	2 3 %
	2.5 - 3 k g	1 4	4 7 %	2 0	6 7 %
	> 3 k g	6	2 0 %	3	1 0 %

Effectiveness of Fenugreek Seed on Breast Milk Production among Postnatal Women in Selected Hospitals of Sangli, Miraj, and Kupwad Corporation Area.”

at e					
---------	--	--	--	--	--

Effectiveness of Fenugreek Seed on Breast Milk Production among Postnatal Women in Selected Hospitals of Sangli, Miraj, and Kupwad Corporation Area.”

In Experimental group, the patients age group distribution reveals that the majority of respondents fall within the 18-20 years category (63%), followed closely by those in the 21-30 years range (20%).

SECTION – II

Table No. 2
Comparison Of Pre-Test And Post Test Of Control Group

N =60

	Mean	Variance	df	t-value	P-value
<i>Pre-assessment score</i>	9.93	3.39	29	-7.72	<0.00001
<i>Post assessment score</i>	12.83	1.07			

The table shows that the mean post-assessment score (12.83) was higher than the mean pre-assessment score (9.93), indicating an improvement in the participants' scores after the intervention. The calculated t-value was -7.72 with 29 degrees of freedom, and the p-value was less than 0.00001, which is highly statistically significant.

Table No. 3
Comparison Of Pre-Test And Post-Test Score Among The Experimental Group

N = 60

	Mean	Variance	df	t-value	P-value
<i>Pre-assessment score</i>	4.3	3.45	29	-16.84	<0.00001
<i>Post assessment score</i>	11.56	1.08			

It is observed that sample mean of post-assessment score is high as compare to pre assessment score.
Conclusion: As p value is less than 0.05, we rejected the null hypothesis at 5% level of significance. Which means, there is significant difference between assessment score values before and after intervention in experimental group

Table No. 4
Comparison Of Post Test Among The Experimental And Control Group

n= 60

	Mean	Variance	df	t-value	P-value
<i>Experimental group</i>	11.56	1.08	58	-4.61	0.000011
<i>Control group</i>	12.83	1.07			

Conclusion: As p value is less than 0.05, we rejected the null hypothesis at 5% level of significance. Which means, there is significant difference between assessment score values in experimental and control group after intervention. This shows that

the use of fenugreek seeds to improve breastmilk is effective

Discussion-

In the present study, the assessment was done with the observational checklist as the tool. In pre-test control group the breastmilk improvement on 7th day mean was 9.93 and

standard deviation was 3.39. In pre-test Experimental group the breastmilk improved level on 7th was 4.3 and standard deviation was 3.45. As the pre-test and post test done with the paired test and t-value is -16.84, while p-value is <0.00001

The mean of posttest of control group mean was 12.83 and standard deviation was 1.07. As the mean of the experimental group was 11.56 and standard deviation was 1.08. Here in post-test statistician applied the unpaired t-test where the t-value is -4.61. After the comparison of the posttest among the control group and post-test of the experimental group the mean p value was < 0.000011 which was significant. This study analysis that the effect of the fenugreek seed on breastmilk among the postnatal mothers is effective.

The experimental group demonstrated significant improvements in all key improved breastmilk parameters, whereas the experimental group and control group shows some variance after the intervention.

A similar study was conducted to evaluate the effect of fenugreek seeds on breast milk production and the short-term catch-up of birth weight (Reena Ravi & Jasmine Joseph, Bengaluru, 2020). This experimental study involved two groups—an experimental group and a control group—and was carried out at a maternity center in Bangalore. Sixty postnatal mothers were selected and randomly assigned to either the experimental (n=30) or control group (n=30). The results showed a notable improvement in signs of breast milk sufficiency among mothers who consumed fenugreek, compared to the control group. The positive impact of fenugreek was particularly evident in increased frequency of infant urination and greater weight gain during the first week of life.

Conclusion

A study to assess the effect of fenugreek seed on breast milk among the postnatal women in the selected hospitals of Sangli, Miraj, Kupwad areas”. The study findings showed that the intervention of fenugreek seed was useful in improving the breastmilk among the postnatal women. In the day wise assessment of the improve breastmilk among the Experimental group and control group Rev Gaucha Enferm. 2017;38:e64675.

showed significant. The intervention led to significant improvements in maternal health and breastfeeding comfort. These findings emphasize the importance of continued lactation education and support programs to sustain positive breastfeeding outcomes

REFERENCES

1. Vine R. Google scholar. Journal of the Medical Library Association. 2006 Jan;94(1):97.
2. Trimeloni L, Spencer J. Diagnosis and management of breast milk oversupply. The Journal of the American Board of Family Medicine. 2016 Jan 1;29(1):139-42.
3. Hoffmann D. Medical herbalism: the science and practice of herbal medicine. Simon and Schuster; 2003 Oct 24.
4. Park K. Textbook of Preventive and Social Medicine: M/S Banarsidas Bhanot. Jabalpur pg. 2006(92).
5. Ballard O, Morrow AL. Human milk composition: nutrients and bioactive factors. Pediatric Clinics. 2013 Feb 1;60(1):49-74.
6. World Health Organization, UNICEF.. Global strategy for infant and young child feeding. World Health Organization; 2003.
7. Smith LC, Ramakrishnan U, Ndiaye A, Haddad L, Martorell R. The importance of Women's status for child nutrition in developing countries: international food policy research institute (IFPRI) research report abstract 131. Food and Nutrition Bulletin. 2003;24(3):287-8.
8. Research Topic: The Effect of fenugreek herbal tea and Palm Dates on breastmilk and Infant weight. El Sakka A, Salama M, Salama K. The effect of fenugreek herbal tea and palm dates on breast milk production and infant weight. Journal of Pediatric Sciences (ISSN: 13091247). 2014 Jan 4;6.
9. Effectiveness of fenugreek as a galactagogue: A network meta analysis Tahir Mehmood Khan TM, Wu Bin Chia [Wu B, Dolzhenko AV. Effectiveness of fenugreek as a galactagogue: a network meta-analysis.
10. BOAT, Sartorio BT, Coca KP, Marcacine KO, Abuchaim ES, Abrao ACFV. Breastfeeding assessment instruments and their use in clinical practice .