

EFFECTIVENESS OF AN INFORMATION BOOKLET ON HOME REMEDIAL MEASURES FOR BREAST ENGORGEMENT

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Abstract :

The study was conducted to evaluate the effectiveness of an information booklet on Home remedial measures for breast engorgement among postnatal mothers. An evaluative approach with one group Pre test Post test design was used for the study. 40 samples were selected using simple random sampling method. The present study was conducted in Justice K.S. Hegde Charitable hospital Mangalore. The collected data were analysed using descriptive and inferential statistics. A significant difference between Pre test and Post test knowledge was found ($t=14.788, p<0.05$). The study findings showed that the information booklet was highly effective in improving knowledge of the postnatal mothers by providing an information booklet on home remedial measures for breast engorgement. There was no significant association between the level of knowledge and demographic variables such as age, residing area, educational status, source of information, occupational status, parity.

Keywords : Home remedial measures, breast engorgement, Postnatal mothers.

Introduction:

Breast feeding is the most enriching experience for every mother; it plants the seeds of mother-child bonding. It is the most natural and, unique experience for every mother. It is a cherished and a learned art. Breast milk the "Cinderella substance of the decade" is nature's most precious gift to the newborn, and equivalent of which is yet to be innovated by our scientific community despite tremendous advances in science and technology. Just as there is no substitute for mother's love, there is no substitute for mother's milk. In an updated review on common problems during lactation and their management, it was found that breast engorgement is one among the several common problems that may arise during the breast feeding period and adequate

management is fundamental, if not treated will lead to early weaning.⁴

A descriptive study was conducted in Turkey on Women's problems when discharged early from the

hospital after a normal vaginal birth, results revealed that breast engorgement was one of the most prevalent problem which constituted 71.4% ($n=80$).⁶ An informative resource by midwife, during short birth facility stays, play an inevitable role in preventing and managing feeding problems like breast engorgement. The education given in the early postnatal period is effective as the mothers are more receptive at this time to any information if it is contributing to the welfare of the child. Information booklet prepared by the researcher will impart knowledge to postnatal mothers on helpful and cost-effective home remedial measures for breast engorgement that can make breast-feeding, a rewarding and comfortable experience for the mother as well as the baby.

Materials and Methods :

An evaluative approach with one group pre test post test design was used for the study. 40 samples were selected randomly. Pre-test was administered to the participants who were admitted in the postnatal ward using structured knowledge questionnaire. The researcher collected the demographic data along with this. It took approximately 45mts. After pretest researcher distributed the

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information booklet on home remedial measures for breast engorgement to the participants. After 5 days of intervention, the investigator administered the post test to assess the level of knowledge of mothers using the same structured knowledge questionnaire. The collected data were analysed using descriptive and inferential statistics.

Results:

Main findings are discussed under the following headings

SECTION 1: DESCRIPTION OF SAMPLE CHARACTERISTICS

Distribution of postnatal mothers according to the demographic characteristics

- 1 Distribution of mother's according to the age shows that highest percentage 47.5 % (19) of mothers were in the age group of 24-29 years, 27.5% (11) in the age group of 18-23 years, 20% (8) were between 30-35 years and 5% (2) were above 35 years of age.
 - 1 Residing area wise distribution of mothers reveals that 40% (16) mothers reside in urban area and 60 % (24) mothers reside in rural area.
- The educational status reveals that majority 40 % (16) of them completed high school, 30 % (12) completed primary school, 17.5 % (7) completed PUC level, and 12.5% (5) of them were having an educational qualification of graduation and above.
- 1 Source of information reveals that majority 60 % (24) of the mothers availed information from family and friends, 25 % (10) of the mothers received information from health professionals and 15 % (6) got information from media.
 - 1 Occupation reveals that majority 82.5 % (7) of them come under non-working category and 17.5% (33) of the postnatal mothers were working.
 - 1 parity reveals that 50% (20) were primiparous and 50% (20) were multiparous mothers.

SECTION II: KNOWLEDGE OF POSTNATAL MOTHERS ON HOME REMEDIAL MEASURES FOR BREAST ENGORGEMENT

Distribution of pretest knowledge scores of the mothers on home remedial measures for breast engorgement

n=40

SCORE RANGE	FREQUENCY	PERCENTAGE
Poor (0-16)	14	35.0%
Average (17-24)	16	40.0%
Good (25-32)	9	22.5%
Very Good (33-40)	1	2.5%

The data presented in the table displays the frequency distribution of postnatal mothers according to their pretest knowledge scores. The data showed that 16 (40%) had average knowledge score [score range 17-24], 14 (35.0%) had poor knowledge [score range 0-16],

9 (22.5%) had good knowledge [score range 25-32] and 1 (2.5%) had very good knowledge [score range 33-40].

Area wise percentage of pretest and post test knowledge scores and gain scores of mothers.

n=40

Sl.No	Areas	Mean percentage scores		Gain scores	
		Actual	Modified	Pretest	Posttest
1.	Definition, causes & symptoms	83.12	94.37	11.25	0.671
2.	Cabbage	41	80.50	39.50	0.669
3.	Massage	56.25	81.25	25	0.571
4.	Kangaroo Mother Care	39.16	87.50	48.34	0.794
5.	hot & cold compress	46	77.5	31.5	0.583
6.	Jasmine flowers	46.25	87.5	41.25	0.767
7.	Other remedial measures	46	70.83	24.83	0.459

The data presented in Table 9 indicate that the post test mean percentage knowledge scores in all content areas were higher than the pretest mean percentage knowledge scores. The maximum post-test mean percentage score was in the area of definition, causes and symptoms. The data also shows that least modified gain was seen in the area of other remedial measures (0.459) and Kangaroo mother care which scored the lowest in pretest (39.16) demonstrated the maximum modified gain (0.794) which showed that information booklet on home remedial measures for breast engorgement was effective.

SECTION III: EFFECTIVENESS OF INFORMATION BOOKLET

Mean, Mean Difference, Standard error of Difference, and t value of pre-test and post-test knowledge scores of postnatal mothers.

n=40

	Mean	Mean	SD	Df	t value	P value(LOS)
Pretest	19.95	11.52	4.950	39	14.788	0.000
Post test	31.47					P<0.05 HS

t (tab) 39 = 2.021 $p < 0.05$ level HS- Highly significant

The data in Table 10 shows that the mean post-test knowledge scores of postnatal mothers were significantly higher than their mean pretest knowledge scores t (tab) 39 = 2.021, and calculated value $t = 14.788$ $p < 0.05$.

Hence research hypothesis was accepted.

Area-wise mean difference, standard deviation and t value of pretest and posttest knowledge scores.

n=40

Sl.No	Areas	Mean knowledge scores		Mean difference	Df	Standard deviation	t value	P value
		Pretest	Post-test					
1	Definition, causes & symptoms	3.32	3.77	0.45	39	0.78	3.63	.001 HS
2	Cabbage	2.05	4.02	1.97	39	1.27	9.83	.000 HS
3	Massage	2.25	3.25	1	39	1.13	5.58	.000 HS
4	Kangaroo Mother Care	1.17	2.62	1.45	39	0.90	10.14	.000 HS
5	Alternate hot & Cold compress	3.22	5.42	2.2	39	1.45	9.57	.000 HS
6	Jasmine flowers	0.92	1.75	0.82	39	.78	6.68	.000 HS

t (tab) 39 = 2.021, $p < 0.05$ HS= Highly Significant

The data presented in the following table 11 shows that the mean post-test knowledge scores of the postnatal mothers were significantly higher than the mean pre-test knowledge i.e. the t (tab) 39 = 2.021 which shows that the calculated value is greater than the table value ($p < 0.05$). This shows that there was significant gain in the knowledge in all the areas of home remedial measures for breast engorgement. Therefore the information booklet has been an effective method of increasing the knowledge of the mothers.

SECTION IV: ASSOCIATION BETWEEN PRETEST KNOWLEDGE SCORE AND SELECTED DEMOGRAPHIC DATA.

Variables	< median	≥ median	χ^2 value	χ^2_{tab}	df	LOS
1.Age						
18-23	8	3	4.257	5.99	2	0.119 p>0.05 NS
24-29	8	11				
30-35	3	7				
2.Education						
High School (8-10)	15	13	1.380	3.8	1	0.240 p>0.05 NS
Secondary School (PUC)	4	8				
3.Source of information						
Health information	7	9	0.150	3.841	1	0.698 p>0.05 NS
Family and friends	12	12				
4.Parity						
Primiparous	10	10	0.100	3.841	1	0.752 p>0.05
Multiparous	9	11				

The above table results that there is no significant association between the age, education, source of information, parity and knowledge level at 0.05 level of significance.

Conclusion:

Application of home remedial measures for breast engorgement can be included as a nursing procedure to provide care during postnatal mothers with breast engorgement and also to update the knowledge on evidence based practices. The nurse administrator initiates the midwives to practice the application of home remedial measures to relieve breast engorgement through inservice education and continuing education programmes and also prepare written policies/protocol about evidence based practice. When nurses integrate the science and art of nursing into their practice, the quality of care provided to clients is at a level of excellence that benefits clients in innumerable ways.

The findings of the present study emphasize the management of breast engorgement with home remedial measures which can be put into nursing practice in relieving breast engorgement in postnatal mothers and

encourage mothers to work with practical knowledge.

Breast engorgement being one of the major problem among the breast feeding mothers and a reason for giving up feeding in the first two weeks, nurses and midwives can be trained to include home remedial measures for breast engorgement in their discharge teaching. The findings of present study can be utilized by nurse researchers to contribute to the profession to accumulate new knowledge regarding breast engorgement and its management, and can take professional accountability to educate and motivate postnatal mothers towards health promoting practices. The present study would help nurses and other healthcare personnel to understand the level of knowledge of postnatal mothers regarding management of breast engorgement using home remedial measures. Based on this knowledge nurse researchers can undertake similar studies among postnatal mothers.

REFERENCES:

1. Neely Melanie Curtis. Breastfeeding experiences of mothers using telehealth at one and four weeks postpartum. *Journal of BSN Honors Research*. 2010;1(1)
2. Stamp G E.Casanova H T.A breast feeding study in a rural population in South Australia. *Rural and Remote Health*. 2006;6:495
3. Margaret. Schmied Virginia. Sheehan Athena. An exploration of the relationship between postnatal distress and maternal role attainment, breast feeding problems and breast feeding cessation in Australia. *Midwifery*.2007;23(1):66-76
4. E R.Giugliani. Common problems during lactation and their management. *J Pediat* 2004; 80(5)147-54.
5. Balogun O R. Early Puerperal Complications: A Two Year Review in a Private Health Facility. *The Nigerian Medical Practitioner*. 2007; 51(3):36-39
6. Sebahat Gozum .Health problems related to early discharge of Turkish women. *Midwifery* 2005; 21(4):371-378.
7. Bang A Rani . Maternal morbidity in labour and puerperium in rural homes and the need for medical attention: A prospective observational study in Gadchiroli, India. Available from URI: www.usaid.gov/our_work/global_health/.../morbidity_labour.doc
8. Hill Pamela D. Humenick, Sharron S.The Occurrence of Breast Engorgement. *The journal of human lactation*.1994;10(2):79-86
9. Mallikarjuna H.B.Banapurmath C.R. Banapurmath. Shobha. Kesaree Nirmala. Breast feeding problems in first six months of life in rural Karnataka. *Indian Pediatrics*.2002; 39(9):861-864
10. Parker E.M.Nursing theories and nursing practice.2nd edition. Philadelphia:Jaypee Brothers; 2007.
11. George .M.J.Nursing theories the base for professional nursing practice.4th edition.Norwalk.Library of congress.1995.
12. Arora Smriti, Vatsa Manju, Dadhwal Vatsla. A comparison of cabbage leaves vs. hot and cold compresses in the treatment of breast engorgement. *Indian journal of community medicine*.2008; 33(3)
13. Ruba.A.Effectiveness of cabbage leaves application to relieve breast engorgement. *Nightingale Nursing Times*.2009; 5(9):48-51.
14. H M Snowden, M J Renfrew, M W Woolridge.Treatments for breast engorgement during lactation. *Cochrane Database Syst Rev* .2001; 18(2) Roberts L Kathryn. A Comparison of Chilled Cabbage Leaves and Chilled Gel packs in Reducing Breast Engorgement. *Journal of human Lactation*. 1995; 11(1):17-20
15. Nikodem V C, Danziger D, Gebka N, Gulmezoglu A M, Hofmeyr G J. Do cabbage leaves prevent breast engorgement? *Birth*.1993; 20(2):61-4.
16. Munns Alison. Cabbage leaves can help inflammation of any body part. *BMJ*.2003;327(7412): 451
17. Lauwers Judith, Swisher Anna. Counseling the nursing mother: a lactation consultant's guide.Canada.Jones & Barlett publishers; 2010.
18. Storr, G. B. (1988), Prevention of Nipple Tenderness and Breast Engorgement in the Postpartal Period. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*. 2006; 17(3):203-209.
19. Hamilton Health Sciences. Breast Engorgement. February 21, 2005.
20. Varney Helen, Kriebs M Jan., Geger L.Carolyn. Varney's Midwifery.Canada.Jones and Barlett. Publishers.2004.
21. Su-Zhao Pan, Qin Zhao. A Comparison of the Breast Distension Relieving Effects of Two Massage Manipulations. *Journal of nursing* 2009-08
22. Vincent Harrison. The Newborn Baby. South Africa.Juta & company ltd.2008.
23. Elsa R. J. Giugliani. Common problems during lactation and their management. *Jornal de Pediatria* 2004;80(5)
24. Hill D Pamela. Association of Serum Prolactin and Oxytocin with Milk Production in Mothers of Preterm and Term Infants. *Biological Research for Nursing*.2009;].000(00)
25. Riordan Jan .Breastfeeding and human lactation. London.Jones and Barlett publishers; 2005.
26. Moore ER, Anderson GC, Bergman N. Early skin-to-skin contact for mothers and their healthy newborn infants. *Cochrane Database of Systematic Reviews* .2007 (3)
27. K Mizuno, N Mizuno, T Shinohara, M Noda. Mother-infant skin-to-skin contact after delivery results in early recognition of own mother's milk odor. *Acta paediatrica* .2004; 93(12):1560-2.
28. Righard L. Alade M. O. Effect of delivery room routines on success of

- first breast-feed. *The Lancet*. 1990; 336(8723): 1105-1107
29. Anderson GC, Moore E, Hepworth J, Bergman N. Early skin-to-skin contact for mothers and their healthy newborn infants. *Cochrane Database of Systematic Reviews* 2003(2).
 30. Moore .R. Elizabeth. Anderson Cranston Gene. Randomized Controlled Trial of Very Early Mother-Infant Skin-to-Skin Contact and Breastfeeding Status. *Journal of Midwifery & Women's Health*. 2007; 52(2):116-125
 31. Bramson Leslie. Effect of Early Skin-to-Skin Mother—Infant Contact during the First 3 Hours Following Birth on Exclusive Breastfeeding during the Maternity Hospital Stay. *Journal of human lactation*. 2010; 26(2):
 32. Knight K L. Cryotherapy in sport injury management. USA. Library of congress. 1995.
 33. Kellogg Harvey John. Rational Hydrotherapy Vol.2. Kessinger Publishing, 2003.
 34. Goldberg Burton, Trivieri Larry, W. Anderson John. Alternative medicine: the definitive guide. Celestial Arts, 2002.
 35. Bomp O Tudor, Haff Greg. Periodization: Theory and Methodology of Training. USA. Human Kinetics, 2009.
 36. Anne Beverley Robson. Breast engorgement in breastfeeding mothers [Dissertation]. Case Western Reserve University, Nursing, 1990. Available from URL: http://etd.ohiolink.edu/view.cgi?acc_num=case1054750626.
 37. Martin Ingrid. Aromatherapy for massage practitioners. Philadelphia. Lippincott Williams & Wilkins. 2010.
 38. Shrivastav P, George K, Balasubramaniam N, Jasper MP, Thomas M, Kanagasabhapathy AS. Suppression of puerperal lactation using jasmine flowers (*Jasminum sambac*). *The Australian & New Zealand journal of obstetrics & gynecology*. 1988; 28(1):68-71
 39. Abraham M. Devi N S. Sheela R. Inhibiting effect of jasmine flowers on lactation. *Indian Journal of Medical Research*. 1979; 69:88-92