https://doi-ds.org/doilink/09.2024-57788566/GIJNR

Glorious International Journal of Nursing Research
(An International Peer-Reviewed Refereed Journal)
ISSN: 2583-9713 www.gloriousjournal.com

A study to assess the effectiveness of Hoffmann's exercise on breastfeeding efficacy among postnatal mothers of Western Maharashtra

Yohannan S[1], Arora C[2] and SivaPriya S[3]

[1]PG Student, College of Nursing, Armed Forces Medical College, Maharashtra.

[2]Associate Professor, Department of Obstetrics and Gynecology, College of Nursing, Armed Forces Medical College, Maharashtra.

[3]Associate Professor, Department of Obstetrics and Gynecology, College of Nursing, Armed Forces Medical College, Maharashtra.

Article Information:

Type of Article: *Original Article* **Received On:** *4th September 2024*

Accepted On: 8th *September 2024* **Published On**: *11th September 2024*

Abstract:

Introduction: Breast feeding self-efficacy is one of the important factors for the mothers to ensure effective and exclusive breast feeding for their infants. Among the various obstacles of the breast-feeding efficacy, nipple inadequacy is very common and it needs proper attention at the right time. Hoffman's exercise is a non-pharmacological intervention to address this issue. The aim of the study was to assess the effectiveness of Hoffman's exercise in enhancing the self-efficacy of the postnatal mothers. **Methodology:** In a one group pre-test post-test study**,** thirty conveniently selected postnatal mothers were assessed for Breast feeding efficacy using BBAT and BSES in a tertiary care hospital of Western Maharashtra. Hoffman's exercise was done three times daily for a period of 5min on each breast for 3 days, thereafter on 3rd postnatal day Breast feeding self-efficacy was reassessed using the same tools. Paired t test was used to compare the pre & post intervention self-efficacy, association of post interventional score with demographic variables was calculated using chi square test. **Results:** The mean and SD of pre and post intervention breast feeding efficacy score are 9.67 $\pm$ 5.797 and 22.03 $\pm$ 4.635 respectively. The paired t test value was 10.152 which was significant at a p value of

https://doi-ds.org/doilink/09.2024-57788566/GIJNR

Glorious International Journal of Nursing Research
(An International Peer-Reviewed Refereed Journal)
ISSN: 2583-9713 www.gloriousjournal.com

<0.001. There was a significant association of post interventional Breast-feeding efficacy with the status of the nipples, as the chi square value was 9.549 at 0.05 level of confidence. **Conclusion:** Hoffman's exercise is effective in enhancing the breastfeeding efficacy of postnatal mothers with nipple problems.

Keywords: Hoffman's exercise, Breast feeding self-efficacy, BFSE-SF, BBAT

Introduction:

The journey of having a baby is the most blissful event in the life of a mother. In this journey mothers usually report breast feeding, as a unique and wonderful experience and nature prepares every mother from the very beginning of conception for this.[1] Early & exclusive breast feeding reduces the risk of neonatal mortality and its non-initiation depends on various maternal and newborn factors.[2] Knowledge, attitude and skill of the mother in the act of feeding a newborn is very important.[3] The first-time mothers definitely lack a sound knowledge in the care of breast and feeding of the baby, they may also fear the disfigurement of body image.[4] The first few hours and days of a new born life is a critical window for establishing lactation and for providing mothers with the support they need to breastfeed successfully. [5] But the nipple problems which are undetected in the antenatal period due to any reasons and if it is not timely addressed may be an obstacle in the breast-feeding journey of a new mother. Flat or inverted nipples are associated with sub optimal and with delayed onset of lactation. [1,6-10]

Breast feeding self-efficacy is a cognitive theory adapted by Dennis and it captures how a mother perceives her ability to breastfeed than her actual ability to succeed at it. Mothers with high self-efficiency are often able to overcome barriers and those with low self-efficiency would find overwhelming. Among the no pharmacological methods, the Hoffmann exercise is an intervention to correct nipple problems. [10-14]

Hoffmann exercise is a manual stretching maneuvers at the base of the nipple helps in breaking the adhesions which keeps the nipple inverted. The procedure is simple to do and is nonpharmacological.[15] Padmavathi P, conducted an interventional study to assess the level of successful breastfeeding after Hoffman exercise on 30 primipara mothers. In control group majority 12 (80%) mother were in medium risk and 3 (20%) in low risk whereas in experimental group 11 (75%) mothers were in low risk and 4 (25%) in medium risk.[15-21] The post-test t-test value of experimental and control group shows 6.82 (P<0.05) and high statistical

https://doi-ds.org/doilink/09.2024-57788566/GIJNR

Glorious International Journal of Nursing Research
(An International Peer-Reviewed Refereed Journal)
ISSN: 2583-9713 www.gloriousjournal.com

significance supporting that Hoffman exercise is effective for treating flat and retracted nipple.[20]

In the maternity wards the researcher has realised the burden of nipple problems and lack of support for the mothers during the initial days of delivery which is adversely affecting the breast feeding.[22] Even after the first delivery many mothers expressed their anxiety and lack of confidence in caring for the baby especially in this matter. The family members also were found helpless in this regard saying that milk is not there or baby is not accepting feed in spite of continuous effort.[23-29] Every time the mother meets a health care provider reaching to her with real concerns, she is really boosted up. She senses a great support and security and that is the need of that particular time. Hoffmann's exercise can create change in performance accomplishments which is one of the factors of the breastfeeding self-efficiency. [30-38] Hence the researcher desires to conduct a study to generate evidence regarding effectiveness of Hoffmann's exercise in breast feeding. The aim of the study was to assess the effectiveness of Hoffman's exercise on breast feeding efficacy score among selected postnatal mothers with nipple problems. [39-43]

A narrative review done by Ghosh D and Singh A in 2019 stated that there was a significant depletion in flat and retracted nipples of primipara mothers after practicing Hoffman exercise and it is an effective method to be practiced as routine care for all primipara mothers in the first stage of labour for reducing the problem of flat and retracted nipples.[44-48]

A pre-experimental study to evaluate the effectiveness of Hoffman's exercise on breast feeding among postnatal mothers with nipple defects was conducted by Godfrey SS. The level of breast feeding was assessed after the Hoffman's exercise among 30 postnatal mothers of a tertiary care hospital of Kanyakumari. The mean difference between the pre-test and the post test was 3.87 and the calculated 't' value was 15.2 which was found to be significant at $P<0.05$. Also, there was no association found with the level of breast feeding and various maternal demographic and base line data. [49-50]

Methods and Material:

Convenient sampling technique is adopted to enroll 30 subjects into the present study considering the feasibility of the study over a period of six weeks. Eligibility of enrolled subjects was assessed based on inclusion and exclusion criteria. Informed written consent was obtained from the eligible subjects before enrolling into the study. In this study the samples

https://doi-ds.org/doilink/09.2024-57788566/GIJNR

Glorious International Journal of Nursing Research
(An International Peer-Reviewed Refereed Journal)
ISSN: 2583-9713 www.gloriousjournal.com

who meet inclusion criteria are, all postnatal mothers willing to participate, delivering at term ≥ 37 weeks POG, detected to have nipple problems by pinch test and hospitalized for a minimum period of 3 days after delivery. All postnatal mothers without any nipple problems or breast-feeding issues, with babies admitted in NICU and with breastfeeding contraindicated due to maternal and neonatal medical -surgical conditions were excluded. The objectives of the study were to assess and compare the pre and post interventional breast-feeding efficacy score among selected postnatal mothers and to determine the association between the pre-interventional Breast-feeding efficacy score with selected socio demographic variables.

Independent variable in the present study is the Hoffman's exercise. The procedure is done by placing the thumbs or the forefingers close to the nipple, then pressing in to the breast tissue quite firmly and gradually pushing the fingers away from the areola. It is done on the vertical and horizontal line for four of five times in succession. The nipple will assume an erect and projected position after this procedure. The tool consists of three sections. Aself-constructed structured questionnaire consisting of the socio demographic variables and baseline data, Bristol Breast Feeding tool, an observational checklist to assess the level to which the proper breast-feeding techniques are followed by the mother and baby and breast-feeding self-efficacy tool which is a self-administered tool by the mother depending upon the level of her confidence she possesses in exclusively breast feeding the baby in the immediate (0-2) postpartum days.

Privacy was ensured throughout the procedure. The samples were subjected to pre-test by the approved tool. After the pretest the intervention was given for 3 consecutive days after delivery, in the postpartum period. The sample were again subjected to a post-test using the same tool as per their preference of language.

Results

Table 1: Distribution of sample population according to age, education and occupation

(n=30)

Parameters	Options	Frequency	Percentage
Age	Up to 20 Years	1	3.3%
	21-25 Years	15	50.0%
	26-30 Years	9	30.0%

https://doi-ds.org/doilink/09.2024-57788566/GIJNR

Glorious International Journal of Nursing Research
(An International Peer-Reviewed Refereed Journal)
ISSN: 2583-9713 www.gloriousjournal.com

	>30 Years	5	16.7%
Education level	SSLC	1	3.3%
	10+2	6	20.0%
	Graduate	19	63.3%
	Post-Graduate	4	13.3%
Occupation	House wife	21	70.0%
	Professional	8	26.7%
	Medical profession	1	3.3%

Table 1 Distribution of sample population according to age, education and occupation. Majority 15 (50%) of the sample population belong to the age group of 21 - 25 years, 9 (30%) mothers were in the age group of 26-30 years, 5 (16.7 %) were above 30 years and only one (3.3%) was aged up to 20yrs. The education level of the sample population revealed that 19 (63.3%) mothers were graduates, 4 (13.3%) were post graduates while one was educated up to tenth standard and remaining 6(20.0%) mothers were educated up to XII standard. Occupational status of the sample population revealed that majority 21(70%) of the mothers were housewives, 9 mothers were professionals, out of which only one was a medical professional.

Table 2: Distribution of sample population according to the gestational age and mode of delivery

(n=30)

Parameters	Category	Frequency	Percentage
Gestational Age	≤ 36 Weeks	1	3.3%
	37-38 Weeks	23	76.7%
	39-40 Weeks	6	20.0%
Mode of Delivery	Normal Vaginal delivery without episiotomy	4	13.3%
	Normal Vaginal delivery with episiotomy	12	40.0%
	Instrumental	0	0.0%

https://doi-ds.org/doilink/09.2024-57788566/GIJNR

Glorious International Journal of Nursing Research
(An International Peer-Reviewed Refereed Journal)
ISSN: 2583-9713 www.gloriousjournal.com

	LSCS	14	46.7%
Indications for LSCS	Failed Induction	2	14.3%
	Fetal Distress	2	14.3%
	Oligo hydramnios	2	14.3%
	Others	8	57.1%

Table 2 represents the frequency and percentage distribution of the sample population according to the gestational age, mode of delivery and indications for LSCS. Distribution of mothers as per gestational age revealed that majority 23 (76.7%) mothers who participated in the study delivered at 37-38-weeks POG, whereas only 6 (20%) delivered at POG of 39-40 weeks.

16 (53.3%) of the mothers in the sample population delivered vaginally. Out of them, 12 underwent episiotomy and only 04 mothers delivered without episiotomy. The remaining 14 (46.7%) underwent either elective or emergency LSCS. Among the sample population who underwent LSCS, the major indication for LSCS was previous LSCS. Other indications of LSCS were failed induction, fetal distress and Oligo hydramnios, FGR and GDM.

Table 3: Comparison of pre and post-interventional breast-feeding efficacy score

(n=30)

Scores	**Pre intervention**		**Post intervention**	
	Frequency	**Percentage**	**Frequency**	**Percentage**
Poor	23	76.7%	03	10.0%
Average	07	23.3%	13	43.3%
Good	0	0	14	46.7%
Mean	9.67		22.03	
SD	5.797		4.635	
T test	10.152			
P value	<0.001			

https://doi-ds.org/doilink/09.2024-57788566/GIJNR

Glorious International Journal of Nursing Research
(An International Peer-Reviewed Refereed Journal)
ISSN: 2583-9713 www.gloriousjournal.com

Table 3 depicts the frequency, percentage, mean and SD of the pre and post intervention scores of the sample population. The comparison of pre and post-interventional breast-feeding efficacy scores of the sample population shows a marked difference in the post interventional score revealing an improvement in the breast feeding efficacy level after the intervention (Hoffman's exercise). The mean and SD of the pre-intervention breast-feeding efficacy score was 9.67 ±5.797 and that of post-intervention was 22.03 ±4.635. The paired t test value was 10.152, with a table value of 2.05 at 0.05 confidence interval depicting a significant difference in the pre and post intervention breast feeding efficacy score. As the p value is <0.00, the null hypothesis is rejected and alternate hypothesis is accepted.

Table 4: Association of post- interventional breast-feeding efficacy scores with status of nipple (bilateral)

(n=30)

Variables	Category	Good	Average	Poor	Chi square value	p value
Status of nipple (lt)	Retracted	0	0	0	9.549	0.049
	Inverted	0	0	1		
	Short nipple	5	4	1		
	Flat nipple	9	9	1		
Status of nipple (rt)	Retracted	0	0	0	9.549	0.049
	Inverted	0	0	1		
	Short nipple	5	4	1		
	Flat nipple	9	9	1		

Table 4.6 describes the association of the of the post- interventional breast-feeding self-efficacy scores with the status of nipple. The chi square value of the status of nipple 9.549 which is greater than the table value of 9.488 at a p value of 0.049. Hence it can be statistically proved

https://doi-ds.org/doilink/09.2024-57788566/GIJNR

Glorious International Journal of Nursing Research
(An International Peer-Reviewed Refereed Journal)
ISSN: 2583-9713 www.gloriousjournal.com

that there is a significant association between the breast-feeding self-efficacy score and the status of nipples.

Discussion:

Among 30 participants, majority (50%) where in the age group of 21 - 25 years. The education level of the sample population revealed that 19 mothers were graduates, 4 were post graduates while remaining mothers where educated up to XII standard. The majority of the sample population (70%) were housewives.40% (12) of the sample population belonged to nuclear families while 18 (60%) came from joint families. 21 (70%) mothers were primipara and the remaining 9 (30%) were multipara mothers. 23 (76.7%) Majority of the sample population delivered at 37-38 wks of period of gestation. The number of vaginal deliveries and LSCS among the sample population was 16 (53.3%) and 14 (46.7) respectively. There were no instrumental deliveries among the sample population. Amongst the 14 (46.7%) mothers who underwent LSCS, the indications for LSCS were fetal distress (2), failed induction (2), oligohydramnios (2), & others like FGR, Preeclampsia, GDM, IHCP. [38]

Among the sample population 23 (76.7%) had poor and 7 (23.3%) had average pre-interventional breast-feeding efficacy. **No mothers could achieve good breast-feeding efficacy in the pre intervention assessment**. The mean pre interventional breast-feeding efficacy was 9.67 with a SD of $\pm$ 5.797. The post-interventional beast-feeding efficacy score, of the selected samples revealed that 14 (46.7%) mothers scored good, 43.3% mothers and (3) 10% scored poor in the breast-feeding efficacy scale. The mean post interventional breast-feeding efficacy was 22.03 with a SD of $\pm$ 4.635. The pre and post interventional score **indicates a marked improvement in the breast-feeding efficacy in terms of reduction in frequency of poor breastfeeding efficacy score from 76.7% to 10% and increase in the frequency of good score from zero to 46.7% after the Hoffman's exercise.** The pre and post interventional comparison of breast-feeding efficacy was found to be statistically significant with the paired t test value of 10.152 where the p value is <0.001.[49]

Statistically significant association was seen between the Occupation & status of nipple. The calculated chi square values were 6.043 and 0.461 which was more than the table values at the level of significance 0.05. This suggested that Hoffman's exercise has a significant association with the occupation and the status of nipple of postnatal mothers. Association of the post

https://doi-ds.org/doilink/09.2024-57788566/GIJNR

Glorious International Journal of Nursing Research
(An International Peer-Reviewed Refereed Journal)
ISSN: 2583-9713 www.gloriousjournal.com

interventional score with other selected socio demographic and base line variables were not statistically significant. [32]

The present study was conducted among 30 postnatal mothers admitted in a tertiary care hospital of western Maharashtra. On analysing the sociodemographic characteristics of the sample population, education level revealed that majority (63.3%) mothers were graduates, 20% were educated up to XII, 13.3% were postgraduates and the remaining mothers were educated up to X standard. The results are supported by a one group pre-post study conducted by Godfrey S S[36] among postnatal mothers with nipple defects of Kanyakumari dist, where the majority (53.34%) mothers were graduates, 23.3% were postgraduates and the remaining (23.3%) had completed secondary education.[36]

In this study, among 30 participants, majority (50%) where in the age group of 21 - 25 years and 30% were in the 26–30-year group. 16.7% were belonging to the group above 30years. This is consistent with the findings of Bagel S A, Salunke J A, Salunke A H, Kakade S V, Mohite V R[48] in their study to assess the problem of inverted nipple and its relationship to successful breast feeding among antenatal mothers, out of 30 mothers, in each group, 45% and 48% were in the group of 22-25 years.[47]

The above study is also congruent with the findings of the occupational status of mothers who were selected for the study. Out of 30 mothers in both groups, the maximum were housewives (47% and 48%), where as in the present study among 30 mothers, 70% were housewives and 26.6% were professionals.[42]

The findings of this study is consistent with the findings of a similar study conducted by Thurkada A P[8] et al among 55 postnatal mothers with grade 1 nipple defects in a multi-speciality hospital of South India in 2022. The BBAT score used for the assessment was significantly high with a p value of <0.001 in the experimental group provided with Hoffman's exercise. The study explained Hoffman's exercise as a simple inexpensive and effective conventional method beneficial for lactating mothers with nipple problems.

The results of this study are congruent with the study conducted by Godfrey SS[36] among 30 postnatal mothers with nipple defects in a multi-speciality hospital of Kanyakumari dist, Tamil Nadu. The mean value of post intervention with Hoffman's exercise was significantly higher than the mean value of pre-test and the t value obtained was 15.2 which was statistically significant at $p<0.05$.

https://doi-ds.org/doilink/09.2024-57788566/GIJNR

Glorious International Journal of Nursing Research
(An International Peer-Reviewed Refereed Journal)
ISSN: 2583-9713 www.gloriousjournal.com

In a study conducted by Abdella N YA[32] et al to assess the effectiveness of Hoffman's exercise on the level of breastfeeding among primi women with inverted nipple, the results showed that the intervention group had a good level (58.2%) of breast feeding than the control group with a p value of <0-001. The level of satisfaction of breast feeding was also high in the intervention group.

Studies conducted on antenatal mothers were also found to be supporting the present study. A study to evaluate the effectiveness of Hoffman's exercise on successful breast feeding among antenatal mothers by Kaur A, Saini P, Sharma K[34] revealed that the mean level of breast feeding after Hoffman's exercise was 78% compared to the control group with 45.3%. it was statistically significant with a p value of 0.001. This study concluded that the experimental group had only medium risk (20%) on the level of breast feeding.

Limitations:

The duration of data collection was limited to 6 weeks. The sample size is small; hence the findings are difficult to be generalized. There was initial hesitancy among the mothers in the first interaction to let the researcher examine their nipples.

Conclusion:

Breastfeeding is one of the essential and important care a baby receives immediately after birth. The midwives or the labour room staff plays an important role in establishing an effective breastfeeding in all post-natal mothers. The mothers with nipple problems face difficulties and they require some interventions to improve the level of breastfeeding. Based on this fact the present study was conducted to assess the effectiveness of Hoffman's exercise among postnatal mothers with nipple problems.

References:

1. Lawrence R A, Lawrence R M. Breast feeding: A guide for the medical profession. 9th edition. New York: Elsevier;2021. 20-5.
2. The World Health Organization's infant and young child feeding, recommendation;2023.
3. UNICEF: Monitoring the situation for children and women; 2023.
4. Crookston J, Jovkovic O. Breastfeeding Protocols for Health Care Providers. Toronto Public Health; 2017.

https://doi-ds.org/doilink/09.2024-57788566/GIJNR

Glorious International Journal of Nursing Research
(An International Peer-Reviewed Refereed Journal)
ISSN: 2583-9713 www.gloriousjournal.com

5. Dutta D C. Textbook of Obstetrics.10th edition. New Delhi: Jaypee Brothers Medical Publishers; 2023.120-10.
6. Rao N D et al. Inverted Nipple. Treasure Island: Stat Pearls Publishing; 2023.
7. Hoffman J. Suggested treatment for inverted nipples. American Journal of Obstetrics and Gynaecology. 1953; 6(2): 346-348.
8. Thurkada A P et al. Effectiveness of Hoffman's Exercise in Post natal Mothers with grade 1 Inverted Nipples. Journal of Human Lactation.2022; 1:69-75.
9. Righard L, Alde M O. Effect of delivery room routines on success of first breast feed. The Lancet. 1990; 336:1105-01.
10. Breast feeding support for Indian mothers. 2023.
11. Abdallah N M A, Eldin S A N et al. Breast and nipple problems encountered among puerperal primipara women in Zagazig. International journal of pharmaceutical research & allied sciences. 2018;7(1):183- 195.
12. Nabulsi M, Ghanem R, Abou-Jaoude M, Khalil A. Breastfeeding success with the use of the inverted syringe technique for management of inverted nipples in lactating women: a study protocol for a randomized controlled trial. Trials. 2019; 20:737.
13. Senanayake P et al, National and rural-urban prevalence and determinants of early initiation of breastfeeding in India. BMC public health. 2019; 9: 896.
14. Kavle J A et al. Barriers to exclusive breast-feeding in low- and middle-income countries: A systematic review and programmatic implications. Public health nutrition. 2017; 3130-3134.
15. Victoria C G et al. Breast feeding in the 21st Century: epidemiology, mechanisms and lifelong effect. The Lancet. Elsevier. 2016; 387:475- 490.
16. Dennis C L. The breastfeeding self-efficacy scale: psychometric assessment of the short form. JOGNN. 2003; 32(6):734 -744.
17. Ponmathi P, Mounika N, Vijayalakshmi B, Sivakumar V P R. Effect of Hoffman's technique on flat nipple over nipple type & quality of breast feeding among post-natal mothers. International Journal of Pharma and Bio Sciences. 2017; 8(4):522-525.
18. Gosh D, Singh A. Effectiveness of Hoffman Exercise on Breast feeding among Primipara Mothers with Flat & Retracted Nipple: A Narrative review. International Journal of Nursing Education. 2019;11(4): 44-45

Glorious International Journal of Nursing Research
(An International Peer-Reviewed Refereed Journal)
ISSN: 2583-9713 www.gloriousjournal.com

19. Doner N H, Oksel E, Tureyen A, Wiedenbach's Nursing Theory: Management of Ankylosing Spondylitis with the Helping Art of Clinical Nursing. International Journal of Caring Sciences 2022; 15(1): 539-544.
20. Rentala S. Basics in Nursing Research and Biostatistics. First edition. New Delhi: Jaypee Brothers Medical Publishers; 2018.125-20.
21. Na Wang et al. Oropharyngeal administration of colostrum targeting gut microbiota and metabolites in very preterm infants: protocol for a multicentre randomized controlled trial. BMC Paediatrics. 2023; 23:508.
22. Academy of breast-feeding medicine. USA;2019.
23. Breast feeding and the use of Human milk: Policy statement. American Academy of Paediatrics; 2022.
24. Christian P, Smith E R. The need to study human milk as a biological system. Am J Clin Nutrition 2021; 113:1063–1072.
25. Nagel E M, Elgersma K M et al. Importance of human milk for infants in the clinical setting: Updates and mechanistic link. American Society for Parenteral and Enteral Nutrition. 2023; 38: 39–55.
26. NFHS-5. Ministry of Health and Family Welfare: India;2019-2021.
27. Alamirew M W, Bayu N H, Tebeje N B, Kassa S F. Hindawi. Knowledge and attitude towards exclusive breast feeding among mothers attending antenatal and immunization clinic at Dabat Health Center, Northwest Ethiopia: A cross-sectional institution-based study. Nursing research and practice.2017; 1-8.
28. Jacobson M S, Sodemann M, Molbak, Aaby P. Reason for termination of breast feeding and the length of breast feeding. International journal of epidemiology. 1996; 25(1):115-121.
29. Jelly P, Sharma SK, Saxena V, Arora G, Sharma R. Exploration of Breastfeeding Practices in India: A Systematic Review. J Holist Nurs Midwifery. 2022; 32(1):58-68.
30. Boralingiah P et al. Study of breastfeeding practices among working women attending a tertiary care hospital, Mysore, Karnataka, India Int J Community Med Public Health. 2016 May;3(5):1178-1182.
31. Santos et al. Prevalence and factors associated with cracked nipples in the first month postpartum. BMC Pregnancy and Childbirth. 2016; 16:209.

https://doi-ds.org/doilink/09.2024-57788566/GIJNR

Glorious International Journal of Nursing Research
(An International Peer-Reviewed Refereed Journal)
ISSN: 2583-9713 www.gloriousjournal.com

32. Abdella N Y A. Mohammed S F. Effectiveness of Hoffman's Exercise on the Level of Breastfeeding among Primiparous Women with Inverted Nipple. Egyptian Journal of Health Care. 2021; 12(1): 607- 624.
33. Nabulsi M, Smaili H, Tamim H, Wahidi M, El-Jamal C. Validation of the Arabic maternal breastfeeding evaluation scale (MBFES-a) among Lebanese women. Int Breastfeed J. 2021;16(60):
34. Kaur A, Saini P, Sharma K. A study to evaluate the effectiveness of Hoffman's exercise on successful breast feeding among antenatal mothers with nipple defects. International journal of health sciences & research.2020;10(3):121-128.
35. Padmavathi P. Effectiveness of Hoffman's exercise in successful breast feeding among primipara mothers with flat & retracted nipples. International journal of nursing education & research.2015;3(2):124-126.
36. Godfrey S S. Effectiveness of Hoffman's exercise on level of breastfeeding among postnatal mothers with nipple defects. Nightingale nursing times 2015; 11(4).
37. Dewey K G et al. Risk factors for sub optimal infant breast feeding behaviour, delayed onset of lactation and excess neonatal weight loss. Paediatrics. 2003; 112(31):607-19.
38. Saghooni N M, Barez M A, Moeindarbari, Karimi F Z. Investigating the breastfeeding self-efficacy and its related factors in primiparous breast feeding mothers. International journal of Paediatrics. 2017; 5(12): 6275-6283.
39. Monteiro JCS, Guimarães CMS, Melo LCO, Bonelli MCP. Breastfeeding self-efficacy in adult women and its relationship with exclusive maternal breastfeeding. Rev. Latino-Am. Enfermagem. 2020;28: 3364.
40. Gonzales A M. Breastfeeding Self-Efficacy of Early Postpartum Mothers in an Urban Municipality in the Philippines Asian/Pacific Island Nursing Journal. 2020; 4(4): 135-143.
41. Dennis C L. Theoretical of breast-feeding confidence: A self-efficacy framework. Journal of Human lactation. 2016;15(3):15-20.
42. Parmar S., Viswanath L. The effectiveness of a breastfeeding self-efficacy programme on breastfeeding self-efficacy and breastfeeding practice among primigravida mothers. Journal of Nurse Midwifery and Maternal Health. 2018; 4(2).

Glorious International Journal of Nursing Research
(An International Peer-Reviewed Refereed Journal)
ISSN: 2583-9713 www.gloriousjournal.com

43. Awaliyah et al. Breastfeeding self-efficacy as a dominant factor affecting maternal breastfeeding satisfaction. BMC Nursing. 2019; 18(30).
44. Ingram J et al. The development of a new breastfeeding assessment tool and the relationship with breast feeding self-efficacy. Midwifery. 2015; 31(1): 132-7.
45. Divya R et al, Breastfeeding assessment tools. An outlook on breastfeeding assessment tools- A review. Journal of Clinical and Diagnostic Research. 2022 ;16(7): 01-04.
46. Amini P et al. The breast-feeding self- efficacy scale short form (BSES – SF): A validation study in Iranian mothers. BMC research Notes. 2019; 12(1):1-6.
47. Polit DF, Beck CT. Nursing Research: Generating and assessing evidence for nursing practice. 10th edn. Philadelphia: Wolters Kluwer;2017.150-10.
48. Bagel U S, Salunkhe A J, Salunkhe H A, Kakade V S, Mohite R V. A comparative study to assess problem of inverted nipple and its relationship to successful breast feeding among antenatal mothers. International journal of health sciences & research. 2017; 7(4) 280-288.
49. Alexander JM, Grant AM, Campbell MJ. Randomised controlled trial of breast shells and Hofman's exercises for inverted and non-protractile nipples. BMJ. 1992; 304:1030-1034.
50. Sharma S K. Nursing Research and Statistics. Second Edition. Haryana: Elsevier;2014.137-20.