



“A QUASI-EXPERIMENTAL STUDY TO EVALUATE THE EFFECTIVENESS OF HOFFMAN'S EXERCISE V/S SYRINGE TECHNIQUE ON BREASTFEEDING AMONG FEEDING MOTHERS WITH FLAT AND INVERTED NIPPLE ADMITTED IN POST- NATAL WARDS OF SELECTED HOSPITALS IN A METROPOLITAN CITY”

Mansi Rajesh Hirlekar

Tutor, Community Health Nursing, P.D. Hinduja College of Nursing D Wing, Emerald Court, Kondivita Lane, Marol Pipe Line, Andheri East, Mumbai, 400059

Prof Siman Xavier

Asso, HOD, Community Health Nursing, P.D. Hinduja College of Nursing D Wing, Emerald Court, Kondivita Lane, Marol Pipe Line, Andheri East, Mumbai, 400059.

ABSTRACT

Breastfeeding is a completely natural way of feeding the baby. Numerous health benefits have been proven to pass from mother to child through breast milk. It is an ideal food for the baby. There are many possible breast abnormalities that breastfeeding mothers may encounter such as long nipple, short nipple, flat and inverted nipple and cracked nipple which may cause difficulties in feeding. Nowadays non-pharmacological strategies are more in trend as compared to pharmacological strategies. Among all the non-pharmacological measures, the most effective approach is Hoffman's exercise and syringe technique to treat nipple problems. **Background:** The World Health Organization and United Nations Children's Fund recommended exclusive breastfeeding, which entails feeding infants with breast milk only, including expressed breast milk, and excluding water, other liquids, breastfeeding substitutes, and solid foods for the first six months of life. Thereafter, adequate complementary foods are introduced, and breastfeeding continues up to two years and beyond besides facilitating the achievement of optimal growth and development, EBF reduces the occurrence of major causes of childhood, such as diarrheal diseases and acute respiratory infection. Globally, Sub-optimal breastfeeding is responsible for 45% of neonatal infectious deaths, 30% diarrheal deaths and 18% acute respiratory infection deaths in children less than five years of age. Mortality rate in non-exclusive breastfed infants is 14.4 times higher than exclusive breastfed infant. EBF is considered as core practice to achieve 2030 sustainable development agendas, specifically SDG 2- which focuses in ending hunger and improving nutrition worldwide; SDG3-which focuses in reducing child, and maternal mortality, and improving health for all people globally. Breastfeeding can offer the ideal food for infants. It contains all the necessary nutrients for the growth and development of infants and antibodies that can protect them from many Childhood illnesses **Aim/Objective:** To find out evaluate the effectiveness of Hoffman's exercise v/s syringe technique on breastfeeding among feeding mother with flat and inverted nipple admitted in post-natal wards **Results:** The p value for degree of freedom 29 at level of significance ($p < 0.05$) is 0.001 which is 3.66 and calculated value 't' value is experimental group 10.4 and control group is 11.33 which is more than table value. Which shows that syringe technique more effective than Hoffman's exercise therefore H₂ rejected H₁ accepted, which shows that, the syringe technique was effective than Hoffman exercise.

KEYWORDS : Effectiveness, Hoffman's exercise, Syringe Technique, Breastfeeding, Inverted Nipple, Post natal mother,

INTRODUCTION

Problem Statement

“A quasi-experimental study to evaluate the effectiveness of Hoffman's exercise v/s syringe technique on breastfeeding among feeding mother with flat and inverted nipple admitted in post-natal wards of selected hospital in a metropolitan city”

OBJECTIVES:

Primary Objectives

1. Evaluate the effectiveness of Hoffman's exercise v/s syringe technique on breastfeeding among feeding mothers with inverted nipple admitted in post-natal wards of selected hospital in a metropolitan city

Secondary Objectives

1. To assess the grading of nipple and latch score among control and experimental group of postnatal mothers.
2. To assess the breast feeding among experimental group of feeding mothers after Hoffman's exercise.
3. To assess breast feeding among control group of feeding mothers after syringe technique.
4. To compare the effectiveness of Hoffman's exercise v/s syringe technique on breast feeding among feeding mothers in both the groups.

Research Design:

Approach: Quantitative research approach DESIGN:

Quasi-experimental study

Setting Of The Study: Post-natal wards of selected hospital in a metropolitan city

Population: All Postnatal mother

Sample: Postnatal mothers who fulfilled the inclusion criteria post-natal wards of selected hospital in a metropolitan city

Sample Size: Experimental group 30 and 30 control group

Sample Technique: Purposive sampling technique

METHOD

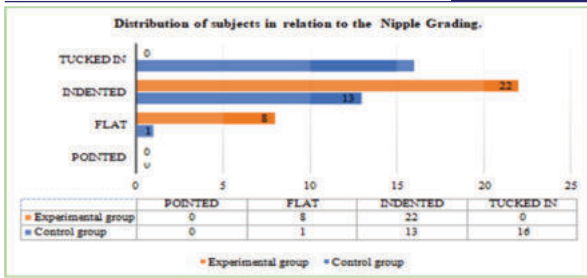
Quasi Experimental study conducted among 60 postnatal mothers selected, from two maternity hospitals in metropolitan area city.

Data was collected by using intervention after taking informed consent and after administration of intervention Hoffman's message on 30 postnatal mother (experimental group) and syringe technique on 30 postnatal mothers (control group). Findings indicate that Hoffman's more effective in Grade one nipple and whereas Syringe method more effective in grade 2 & 3 nipple.

Finding Of The Study

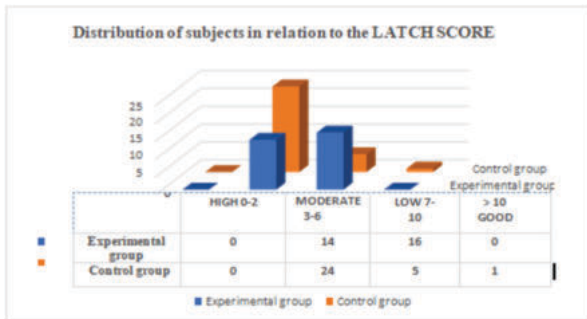
Distribution of subjects in relation to the Nipple Grading

- Majority of the subjects categorize under Indented nipple among experimental group whereas 16(53%) subjects come under tugged in category among control group.
- Two samples are not related to each other and p value which is less than 0.05 states that there is significant difference in the mean nipple grading score of women across the two groups.



Distribution of subjects in relation to the LATCH SCORE

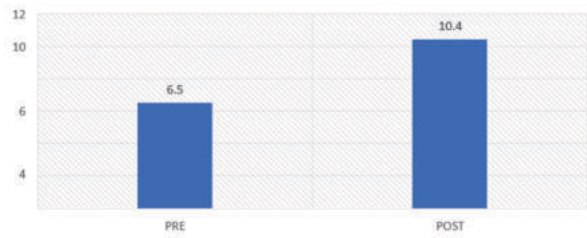
- Maximum number of subjects 28 16(53%) involved under Low Latch score among experimental group whereas 24((80%) subjects involved under moderate latch score among control group.
- Two samples are not related to each other and p value which is less than 0.05 states that there is significant difference in the mean latch score of women across the two groups and the difference is statistically significant.



Comparison of before and after mean latch score of mothers who received Hoffman's Exercise

- Depicts summary statistics of before and after Hoffman's exercise mean latch scores. Before the intervention, the mean score was 6.5 and after the planned Hoffman's exercise it has increased to 10.4.
- The p value for degree of freedom 29 at level of significance (p < 0.05) is 0.0001 which is less than 0.05, therefore H0 rejected, which shows that, the Hoffman's exercise was effective.

Mean score of pre and post of experimental groups



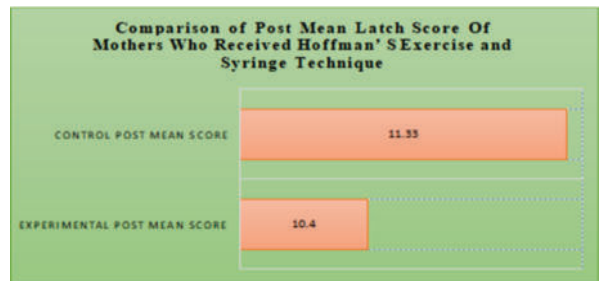
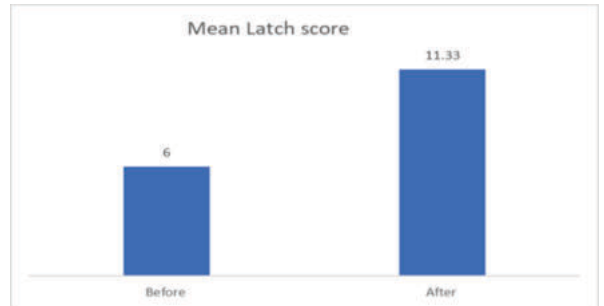
Comparison of before and after mean latch score of mothers who received syringe technique

- Depicts summary statistics of before and after Syringe technique mean latch scores. Before the intervention, the mean score was 6 and after the planned Syringe technique it has increased to 11.33.
- The p value for degree of freedom 29 at level of significance (p < 0.05) is 0.0001 which is less than 0.05, therefore H0 rejected, which shows that, the syringe technique was effective.

Comparison of post mean latch score of mothers who received Hoffman's exercise vs syringe technique

- Post intervention, the mean score of Hoffman's exercise (experimental group) is 10.4 and Syringe technique (Control Group) is 11.33. Mean difference between two intervention is 0.93

- The p value for degree of freedom 29 at level of significance (p < 0.05) is 0.001 which is 3.66 and calculated value 't' value is experimental group 10.4 and control group is 11.33 which is more than table value. Which shows that syringe technique more effective than Hoffman's exercise therefore H2 rejected H1 accepted, which shows that, the syringe technique was effective than Hoffman exercise.



CONCLUSION:

Inadequate preparation for breastfeeding during antenatal check-ups is one of the greatest bottle necks in successful lactation. The breast should be assessed during pregnancy to identify flat or inverted nipples. Identification of mothers with nipple defects and provides Hoffman's exercise as well as taught about the importance of Hoffman's exercise thereby they can help women in antenatal period to correct the nipple defects for achievement of successful breastfeeding after delivery.

REFERENCES

1. Ms. G. Prince Rose, A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Breast Feeding Problems Among Primi Gravida Mothers at The Selected Hospitals at Dindigul
2. Godfrey S.S. Role to Hoffman's exercise on level of breastfeeding among mothers with nipple defects. *Nightingale nursing times*. July 2015; 11(4)
3. Smith A. Flat or inverted nipples. *IBCLC Breastfeeding basics*. July 2013.
4. Amir LH. Breastfeeding-managing 'supply' difficulties. *AustFam Physician*. 2006; 35(2):686-689
<https://brieflands.com/articles/jcp-19784.html>
5. An Overview of Importance of Breastfeeding 2013-(28).pdf
6. Victoria CG. Breastfeeding in the 21st century: epidemiology mechanism and lifelong. *January 2016*; 383(3):475-490.
7. Kotsopoulos J, Lubinski J, Salmena L, Lynch HT, Kim-Sing C, Foulkes WD, Ghadirian P, Neuhausen SL, Demsky R, Tung N, Ainsworth P, Senter L, Eisen A, Eng C, Singer C, Ginsburg O, Blum J, Huzarski T, Poll A, Sun P, Narod SA; Hereditary Breast Cancer Clinical Study Group. Breastfeeding and the risk of breast cancer in BRCA1 and BRCA2 mutation carriers. *Breast Cancer Res*. 2012 Mar 9;14(2): R42. Doi: 10.1186/bcr3138. PMID: 22405187; PMCID: PMC3446376.
8. Natland ST, Nilsen TI, Midthjell K, Andersen LF, Forsmo S. Lactation and cardiovascular risk factors in mothers in a population-based study: the HUNT-study. *Int Breastfeed J*. 2012 Jun 19;7(1):8. Doi: 10.1186/1746-4358-7-8. PMID: 22713515; PMCID: PMC3489591.