

Effectiveness of Hoffman Exercise on Breastfeeding among Primipara Mothers with Flat and Retracted Nipple: A Narrative Review

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Abstract

Introduction: Breastfeeding is one of the most natural and beneficial acts a mother can do for her child. There is no other single action by which a mother can impact the present and future health of her baby. Nipple abnormalities are commonly encountered in clinical practice especially in relation to lactation problem in postnatal. A truly inverted nipple is caused by adhesion at the base of the nipple that binds the skin to the underlying tissue. AIM: The aim of this narrative review is to find information on the effectiveness of Hoffman exercise on breastfeeding among primipara mothers with flat and retracted nipple. Methodology: Hoffman exercise Types of studies- Quasi-experimental, Pre experimental, True Experimental study. Setting- Postnatal ward of maternity hospital. Outcome- This narrative review result has appeared that Hoffman exercise will be effective on breastfeeding in flat and retracted nipple.

Keywords: Hoffman exercise, breastfeeding, Primi-para mothers, flat nipple and retracted nipple.

Introduction or Background

In women who are pregnant for the first time, it is very common that the nipple may not protrude fully. About one-third of mothers will experience some degree of inversion, but as the skin changes and become more elastic during pregnancy.

Retracted and flat nipple is commonly available in primi para mothers. During postnatal periods nipple abnormalities are often encountered in clinical practice in relation to lactation problem. One of the most advantageous and natural acts as a mother can do for her baby is breastfeeding. Breastfeeding is beneficial for both mother and child and its help for the present and future health of the child. It also helps in brain development and makes baby mentally and physically strong (Gandhimathi M, Kalavathi S, 2006)⁶

The abnormalities of the nipple include long nipple, short nipple, abnormally large nipple, inverted nipple, flat nipple, retracted nipple and cracked or damaged nipple. Nipple problem should not interfere in the breastfeeding process if proper guidance and counseling are provided to the mother during postnatal periods. Sometimes mothers stop breastfeeding due to these nipple problems

and baby didn't get benefits of colostrums. An evaluation was made that 10% of pregnant women have inverted or non-projectile nipples which delay breastfeeding.

Findings

A study was conducted to assess the prevalence and non-protractile nipples in antenatal women's. A total number of 3006 antenatal women was examined in antenatal clinics of District general hospital and or outlying antenatal clinics from 1987-1989 by midwives. The study results found that 295 (9.8%) at 95% CI, 88-10.9% has found at least one inverted or flat nipple. The study also found that increasing maternal age, previous breastfeeding and increasing gestation having a significant impact on reduction in prevalence of flat and retracted nipples (Alexander & Campbell, 1997).¹

Another study was conducted to find out best outcome between breast shell or Hoffman exercise for antenatal mother who has at least one inverted or non-projectile nipple. The study was conducted on 1987-1989 in antenatal clinics of district general hospital or community area. A total number of 96 women participated in this study was divided into four groups. One group receive breast shell, another received Hoffman

exercise, another received both breast shell with Hoffman exercise and last one was control group without any treatment. The study result found improvement noticed in breast shell used group 25 (52%) and 29 (60%) no shell with a difference of 8% in CI 95%. Same like in exercise group 26 (54%) got improvement and 28 (58%) no exercise with a difference of 4% at CI 95%. So the study concluded none of the method have clear evidence of successful breastfeeding in postnatal period to be advised (Alexander, Grant & Campbell, 1992).²

Padmavathi P, 2015 conducted a study to assess the level of successful breastfeeding after intervening Hoffman exercise. The study was conducted on 30 primipara mothers and study result found that after giving Hoffman exercise in control group majority 12 (80%) mother are fallen in medium risk and 3 (20%) are in low risk whereas in experimental group 11 (75%) mothers are in low risk and 4 (25%) are in medium risk. Comparison of post-test value of experimental and control group (t-test) shows 6.82 ($P < 0.05$) also shows highly significant. So the study is supporting that Hoffman exercise is effective for treating flat and retracted nipple.³

Another comparative study was conducted on three types of experiment among antenatal mother to find out the effectiveness of the intervention. Each group comprises 30 participants each and the first group receives manual technique, second group rubber band and the last group received syringe method. The study result found that the mean score of breastfeeding in group 1 6.57+/1.50, group 2 6.03+/-0.76 and group 3, 6.00+/-1.00. So the study finally concluded that none of the method are strongly significant to advise, all three types are having an impact on success in breastfeeding (D Manjubala, 2016).⁴

The study was conducted on two postnatal mothers in a case series method. Before Hoffman exercise nipple pinch test was positive for both the mothers which turn into negative after exercise. Along with that breastfeeding quality also increased. So the study said that Hoffman exercise is good to practice to correct flat and retracted nipple and quality of breastfeeding among immediate postnatal mother (Ponmathi, Mounika, Vijayalakshmi, & Sivakumar, 2017).⁵

Conclusion

There was a significant depletion in flat and retracted nipple of primipara mothers after practicing the Hoffman exercise, thus it has demonstrated to be an effective technique for reducing flat and retracted nipple. Therefore, this intervention should be encouraged as hospital policy and implemented as routine care for all the primipara mothers in the first stage of labour for reducing the problem of flat and retracted nipple.

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Ethical Clearance:

- Prior permission was obtained from the Medical Superintendent of District Women Hospital.
- Informed written consent was taken from each participant under the study. The objective of the study was maintained with honesty, privacy confidentiality and anonymity.

Conflict of Interest: Nil

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