Effectiveness of breast milk application on sore nipples among postnatal mothers

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Article History:
Received on: 03 Nov 2020
Revised on: 07 Dec 2020
Accepted on: 12 Dec 2020

Keywords:
Breast Milk,
Nipple Soreness,
Cracked nipples,
Postnatal Mothers

Abstract
Breast feeding is very important for the health and well-being of infants and mothers. It has been traditional way of feeding newborn in our country and is one of the most natural and beneficial acts a mother can do for her child. Areola irritation is regular in breastfeeding ladies during the initial not many days after conveyance. Most of the sore and broke areolas are the aftereffect of wrong situating and connection of the infant at the breast. The present study aims to assess the effectiveness of breast milk application on sore nipples among postnatal mothers in a Saveetha Medical College and Hospital, Chennai. A quantitative pre-experimental one group pretest and post-test research configuration was embraced and the examination was directed with 30 postnatal moms who were chosen by utilizing non-likelihood purposive inspecting method. The organized meeting was utilized to gather segment information and Nipple Trauma Checklist was utilized to survey the sensitive areola. Pretest was directed prior to overseeing the bosom milk by surveying the areola utilizing Nipple Trauma Checklist. Investigator expressed the mother’s breast milk into a sterile gauze piece and gently rubbed over the nipples, allowing it to air dry for 10-15 minutes. Intervention was given for thrice a day for two days and posttest was done on the third day. The study finding shows that critical improvement was seen which unmistakably derives that use of expressed breast milk over areola was discovered to be compelling in the administration of areola irritation among postnatal moms.

INTRODUCTION
Breastfeeding is the most ideal approach to furnish infants with the supplements they need. (Kent et al., 2015) WHO suggests select breastfeeding until an infant is a half year old and kept breastfeeding with the expansion of nutritious integral nourishments for as long as two years or past. (Tinker et al., 2010)

Every mother who has to breast feed her baby is likely to come across various difficulties and problems. (Cantrill et al., 2014) One among them is sore nipples. Two fundamental driver of sore areolas are either the infant isn't situated and locked appropriately or the infant isn't sucking appropriately or both. (Dennis et al., 2014) Parasitic disease (because of candida albicans) may likewise cause sore areolas. The resultant uneasiness or torment frequently makes the mother suspend the bosom feeding. (Wagner et al., 2013)

Studies have demonstrated that 80 - 90 % of bosom taking care of ladies encounters some areola irri-
tation, with 26% advancing to breaking and outrageous areola pain. (McCann et al., 2007) Sore areolas related with bosom taking care of are as yet a typi- cal problem. (McClellan et al., 2012) Many investiga- tions show that bosom milk seems to have mending properties that can demonstrate helpful with regards to treating minor sickness and wounds. This is a direct result of the antibodies that the bosom milk contains. (Amir et al., 1996)

A test study was led in America to recognize a successful readiness technique for breastfeeding and to create estimation devices for areola delicacy and bosom engorgement which will be helpful for evaluating the seriousness. 25 subjects filled in as their controls by setting one up areola and kneading one areola, either the left or right, however not the other bosom or areola. (Tait, 2000)

Areola delicacy and bosom engorgement were recorded on five-point scales. Examination of the information uncovered that delicacy and engorge- ment were diminished in the readied, rubbed breast. (McClellan et al., 2008) The examiner with her perception broke down that sensitive areolas are normal among the postnatal moms and the bosom milk application serves to the better recuperating of sore nipples. (Amir, 2014) Therefore, the point of this investigation was to survey the viability of bosom milk application on irritated areolas among postnatal moms in a Saveetha Medical Col- lege and Hospital, Chennai.

The purpose of the study is to assess the pretest and post-test level of nipple soreness among postna- tional mothers, to determine the effectiveness of breast milk application on sore nipples among postnatal mothers and to associate post-test level of nipple soreness among postnatal mothers with selected demographic variables.

**MATERIALS AND METHODS**

A quantitative approach with pre-experimental one group pretest and post-test research design was used to conduct the study in postnatal wards of Saveetha Medical College and Hospital. 30 postna- tional mothers were selected by using a non-probability purposive sampling technique. The criteria for sam- ple selection are postnatal mothers who are with bilateral nipple soreness, willing to participate and available at the time of data collection. The exclusion criteria for the postnatal mothers who have bleeding on sore nipples and use any medications on sore nip- ples. The data collection period was done with prior permission from the Principal of Saveetha College of Nursing and DMO of the Saveetha Medical College and hospital, Chennai. The purpose of the study was explained to the postnatal mothers and consent was obtained from them. The confidentiality of the data collected was assured to the samples. Structured interview was used to collect demographic data and nipple trauma checklist was used to assess the sore nipples. Pretest was done to assess the nipple sore- ness by using nipple trauma checklist. Investigator ex- pressed the mother’s breast milk into a sterile gauze piece and gently rubbed over the nipples, allowing it to air dry for 10-15 minutes. Intervention was given for thrice a day for two days and posttest was done on the third day. The data collection was terminated by thanking the caregivers for their participa- tion and co-operation. The data were analyzed using descriptive and inferential statistics. The sam- ple characteristics were described using frequency and percentage. Student paired ‘t’ test was used to assess the effectiveness of breast milk application on sore nipples between the pretest and posttest. Chi- square was used to associate the post-test level of nipple soreness with the selected demographic vari- ables.

**RESULTS AND DISCUSSION**

**Sample characteristics**

Among 30 samples, most of them 17(56.7%) were in the age group of 20 – 25 years, 14(46.7%) were in 3rd postnatal period, 16(53.3%) had only one delivery, 20(66.7%) were feeding every hourly and 17(56.7%) were feeding 5 – 10 minutes.

**Assessment of level of nipple soreness among postnatal mothers**

The statistical analysis of assessment of nipple sore- ness shows that in the pretest, 27(90%) had nip- ple soreness and 3(10%) had mild nipple sore- ness. Whereas in the post-test, after the application of breast milk 17(56.67%) had no nipple soreness and 13(43.33%) had mild level of nipple soreness. (Table 1)

**Effectiveness of breast milk application on nip- ple soreness among postnatal mothers**

The present study depicts that pretest mean score of nipple soreness was 9.63 with standard deviation 2.13 and the post-test mean score of nipple sore- ness was 2.0 with standard deviation of 2.45. The calculated paired ‘t’ test value of t = 25.337 was found to be statistically highly significant at p<0.001 level. This clearly infers that breast milk application on breast soreness among postnatal mothers was found to be effective and significant improve- ment was observed in the post-test level of nipple soreness among postnatal mothers. (Table 2)

The study was supported by Tamil Selvi (2017)
Table 1: Frequency and percentage distribution of pre-test and post-test level of nipple soreness among postnatal mothers. N = 30

| Knowledge       | No Nipple Soreness (0) | Mild (1–6) | Moderate (7–13) | Severe (14–20) |
|-----------------|------------------------|-----------|-----------------|----------------|
| Pretest         | 0                      | 3         | 10.0            | 27             | 90.0          | 0              | 0              |
| Post Test       | 17                     | 56.67     | 43.33           | 0              | 0             | 0              | 0              |

Table 2: Comparison of pre-test and post-test level of nipple soreness among postnatal mothers. N = 30

| Nipple Soreness | Mean | S.D | Paired ‘t’ test Value |
|-----------------|------|-----|----------------------|
| Pre-test        | 9.63 | 2.13| t = 25.337           |
| Post-test       | 2.00 | 2.45| p = 0.0001           |

***p<0.001, S – Significant

which assessed the pretest and posttest level of grade of nipple soreness among primipara mothers in experimental and control group was assessed. In pretest among experimental group all the primipara postnatal mothers (100%) are in grade 0 (no nipple soreness). In posttest (Day5) among experiment group 28(93.3%) primipara postnatal mothers are in grade0 (no nipple soreness), and 2(6.7%) of them are in grade1 (Nipple slightly red and
tender) of nipple soreness descriptive Assessment Scale. Statistically there is no significant difference between pretest and posttest ($\chi^2=3.08$, $p=0.08$). Statistical significance was calculated using chi-square test. (Selvi, 2017)

The present study also depicts that none of the demographic variables had shown statistically significant association with posttest level of nipple soreness among postnatal mothers.

CONCLUSIONS

The present study assessed the effectiveness of breast feeding technique among postnatal mothers. The results revealed that breast milk application had a significant effect in preventing nipple soreness.

Conflict of interest

The authors declare that they have no conflict of interest for this study.

Funding support

The authors declare that they have no funding support for this study.

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