

Effectiveness of Reflex Zone Therapy on Lactation among Postnatal Mothers of Selected Hospitals

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Abstract: *Background of the study: Breast feeding is a natural human activity. To have the full benefit of breastfeeding, the WHO recommended exclusive breastfeeding for at least six months of life and supplemented breastfeeding for at least one year. In 2007, the rate of breastfeeding at early postpartum was 75.0 %, at 6 months of age was 43.0% and at 12 months was 22.2%. apparently, more than 50% of mother failed to breastfeed their baby adequately and thus face a risk of lactation failure due to stress, fatigue, anxiety, unfounded fears and also anaesthesia, strong sedation, prolong labour, surgical intervention, placenta retention etc. (Edmond KM. et al., 2000) OBJECTIVES 1. To assess the lactation before reflex zone therapy in control group and experimental group among postnatal mothers admitted in postnatal wards of selected hospitals. 2. To assess the lactation after reflex zone therapy in experimental group among postnatal mothers admitted in postnatal wards of selected hospitals. Methods: A Quasi - experimental two group pre - test post - test design was conducted to assess the effectiveness of reflex zone therapy on lactation among postnatal mothers admitted in postnatal wards of selected hospitals. Total 40 samples were selected by non - probability purposive sampling technique. Demographic profile was used to collect data and LATCH breastfeeding assessment tool scale was used to assess the effectiveness of reflex zone therapy on lactation. The effectiveness of reflex zone therapy on lactation had been analysed by mean, SD and test of significance by unpaired 't' test. Results: The post - test mean score of experimental group was 11.90 with standard deviation of 0.91. P value was 0.00. The p value of the test was less than 0.05, hence the null hypothesis (H₀) is rejected and alternative hypothesis (H₁) is accepted.*

Keywords: Reflex zone therapy, Lactation, Postnatal mothers

1. Introduction

Breastfeeding is nature's own way to nurture a new born under the warm protection of a mother and no other joy could be compared to the bliss a mother feels when she breastfeeds her baby for the very first time. No number of artificial supplements comes close to meeting the nutrients required to a new born than breast milk. It contains everything that your baby needs in all the right quantities and is in a form that is easy to digest.¹

Sometimes there can be problems with breastfeeding specially when there is inadequate milk. There are many measures to improve production of milk like consumption of galactagogues supplements, fenugreek seeds, garlic, goat's rue, acupuncture, and other herbal preparations.

Reflexology also known as zone therapy, is an alternative medical practice involving the application of pressure to specific points on the feet and hands. These points correspond to organs and areas of the body. This is done using specific thumb, finger and hand massage techniques without the use of oil or lotion. It is based on pseudoscientific system of zones and reflex areas that purportedly reflect an image of the body on the feet and hands. The Australian Government's Department of Health defines reflexology as a system of applying pressure, usually to the feet, which practitioners believe stimulates energy and releases 'blockages' in specific areas that cause pain or illness.²

2. Problem Statement

A study to assess the effectiveness of reflex zone therapy on lactation among postnatal mothers admitted in postnatal wards of selected hospitals.

3. Objectives

- 1) To assess the lactation before reflex zone therapy in control group and experimental group among postnatal mothers admitted in postnatal wards of selected hospitals.
- 2) To assess the lactation after reflex zone therapy in experimental group among postnatal mothers admitted in postnatal wards of selected hospitals.

Hypothesis

H₀: There will be no significant difference in lactation after intervention in control group and experimental group among postnatal mothers.

H₁: There will be a significant difference in lactation after intervention in experimental group among postnatal mothers.

4. Methodology

- **Research Approach:** A Quantitative Evaluative approach.
- **Research Design:** Quasi - experimental two group pre - test post - test design was selected as a research design.
- **Setting of the study:** The study was conducted in postnatal wards of selected hospitals.
- **Accessible Population:** The accessible population comprised of the postnatal mothers with normal delivery and caesarean section from first day of delivery.
- **Sample size:** The samples were the postnatal mothers with normal delivery and caesarean section, from first day of delivery those who are admitted in the post - natal wards of selected hospitals.
- **Sampling Techniques:** Non - probability purposive sampling technique was adopted to select the subjects.

Variables under study:

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- 1) **Independent Variables:** In the present study, reflex zone therapy is an independent variable.
- 2) **Dependent Variables:** In this study, lactation is a dependent variable.
- 2) Before initiating the research, permission was obtained from the higher authorities of the hospital.
- 3) The data collection was done in the period of 22/11/2020 to 22/12/2020 40 subjects were selected using non - probability purposive sampling. These subjects were selected on the first post - operative day of caesarean section and they were randomly assigned to the control group and experimental group.

Criteria for Selection of the samples:

Inclusion criteria:

- a) Postnatal mothers.
- b) Mothers who are willing to participate in the study.

Exclusion criteria:

- a) Critically ill babies.
- b) Mothers with babies having congenital abnormalities such as trachea - oesophageal fistula, cleft lip and cleft palate.
- c) Mothers with instrumental delivery, cracked nipples, who are on medication to initiate lactation.
- d) Mothers with selected puerperal complications such as PPH, eclampsia.

Description of the Data Collection Tool:

In this study, the tool was prepared on the basis of the objectives of the study.

The following steps were undertaken prior to the preparation of the tool.

- a) Extensive review of literature.
- b) Consultation with experts.
- c) Direct contact.

Section - I: It includes information on demographic profile of the subjects containing five items related to mother (age (in years), parity, type of delivery, educational status, type of family).

Section - II: Modified LATCH Breastfeeding Assessment Tool.

Scoring method: LATCH breastfeeding assessment tool scale was developed by Jensen D, Wallace S and Kelsey P. This scale consists of 5 components - Latch, Audible swallow, Type of nipple, Comfort and Hold in which total score ranges from 0 to 10.

Modified LATCH Breastfeeding Assessment Tool consists of the above five components and other two components: Breasts and Baby's nappies. The total score ranges from 0 to 14.

Reliability: The reliability for the research tool of observational checklist was elicited by using Inter - rater reliability test ($r=0.95$). The tool was found to be reliable for the present study.

Procedure for data collection:

- 1) Requisition letter for conducting research study and brief details of study were sent to the selected hospitals under the study.

The investigator explained the brief details of the study to the subjects and a written informed consent was taken and confidentiality was assured to all the mothers to get their cooperation throughout the process of data collection.

After sorting the subjects in both experimental group and control group respectively, demographic data was collected from both the groups.

In the experimental group reflex zone therapy was administered immediately after pre - test for 10 minutes on each foot in the morning and evening for 3 days for experimental group.

Observation was done every morning for Latch, Audible swallow, Type of nipple, Comfort, Hold, Breasts and Baby's nappies for 3 days by using Modified LATCH Breastfeeding Assessment Tool.

Routine treatment was administered to the subjects in control group.

Effect of reflex zone therapy on lactation is observed for three days using the Modified LATCH Breastfeeding Assessment Tool.

Plan for Data Analysis:

Baseline proforma containing sample characteristics (demographic variables) were assessed by using frequency and percentage.

The effectiveness of reflex zone therapy on lactation had been analysed by mean, SD and test of significance by unpaired 't' test.

Ethical consideration:

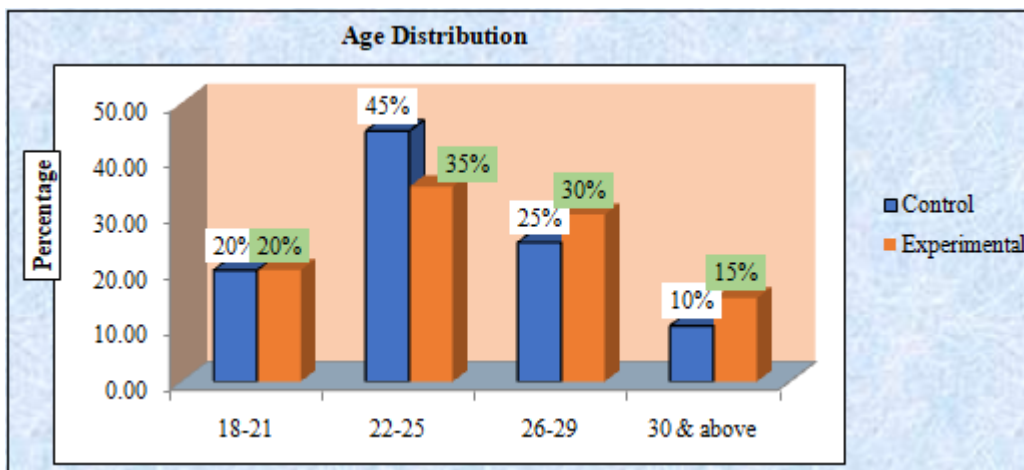
The study was approved by research committee of institution. Assurance was given to the subjects that anonymity of each individual would be maintained.

5. Results

Section I: Analysis of demographic data of postnatal mothers by using frequency and percentage.

Table 1: Frequency and Percentage distribution of the Postnatal Mothers

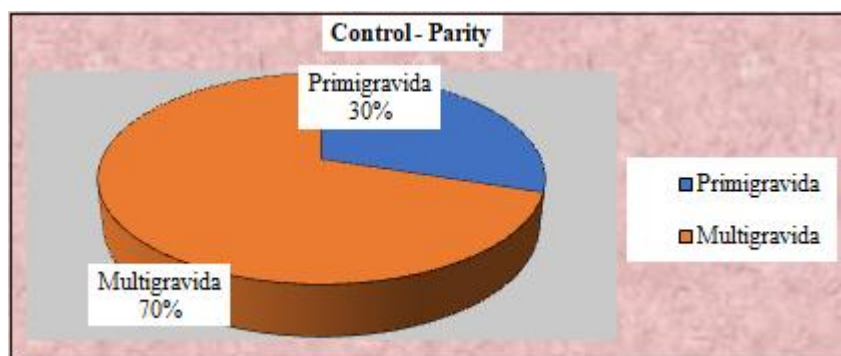
| Sr. No. | Variable | Groups | Experimental | | Control | |
|---------|------------------|---------------------|--------------|------------|-----------|------------|
| | | | Frequency | Percentage | Frequency | Percentage |
| 1 | Age | 18 - 21 | 4 | 20 | 4 | 20 |
| | | 22 - 25 | 7 | 35 | 9 | 45 |
| | | 26 - 29 | 6 | 30 | 5 | 25 |
| | | 30 & above | 3 | 15 | 2 | 10 |
| 2 | Parity | Primi gravida | 12 | 60 | 6 | 30 |
| | | Multigravida | 8 | 40 | 14 | 70 |
| 3 | Type of delivery | Normal delivery | 9 | 45 | 12 | 60 |
| | | LSCS | 11 | 55 | 8 | 40 |
| 4 | Education | Primary Education | 4 | 20 | 6 | 30 |
| | | Secondary Education | 6 | 30 | 5 | 25 |
| | | Higher Education | 10 | 50 | 9 | 45 |
| 5 | Type of family | Joint Family | 13 | 65 | 12 | 60 |
| | | Nuclear Family | 7 | 35 | 8 | 40 |

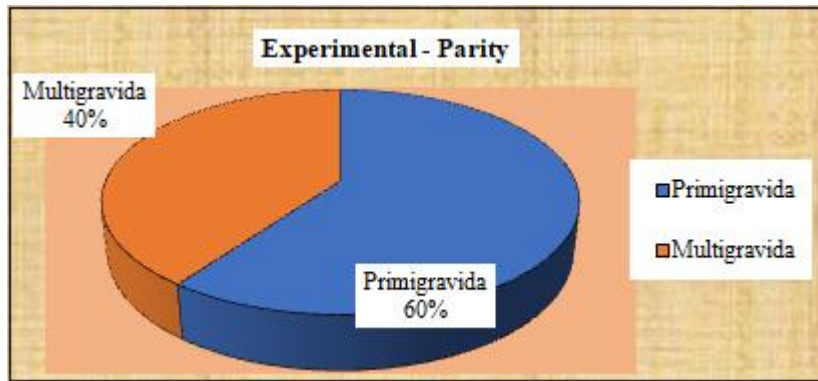


Graph 1: Bar Graph showing the Frequency and Percentage Distribution Age Among Control Group And Experimental Group

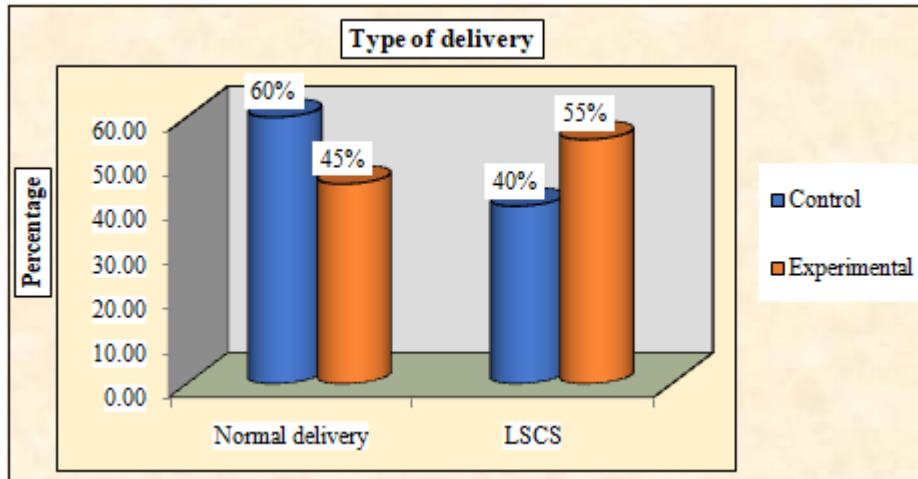
The above graph shows that, in the control group, majority 9 (45%) mothers were in the age group between 22 - 25 years, 5 (25%) mothers were between 26 - 29 years, 4 (20%) mothers were between 18 - 21 years and 2 (10%) mothers were between 30 years and above.

In the experimental group, majority 7 (35%) mothers were between 22 - 25 years, 6 (30%) mothers were between 26 - 29 years, 4 (20%) mothers were between 18 - 21 years and 3 (15%) mothers were between 30 years and above.



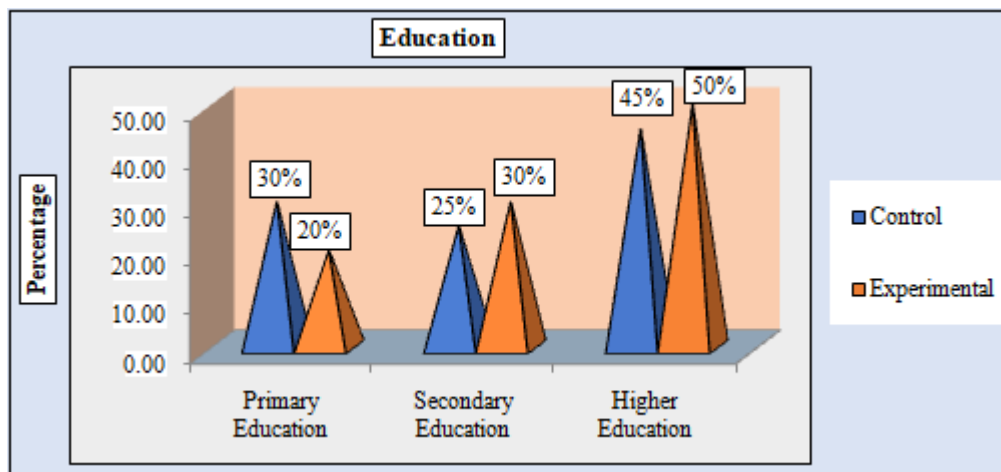


Graph 2: Pie Graph Showing Frequency and Percentage Distribution of Parity among Control Group and Experimental Group



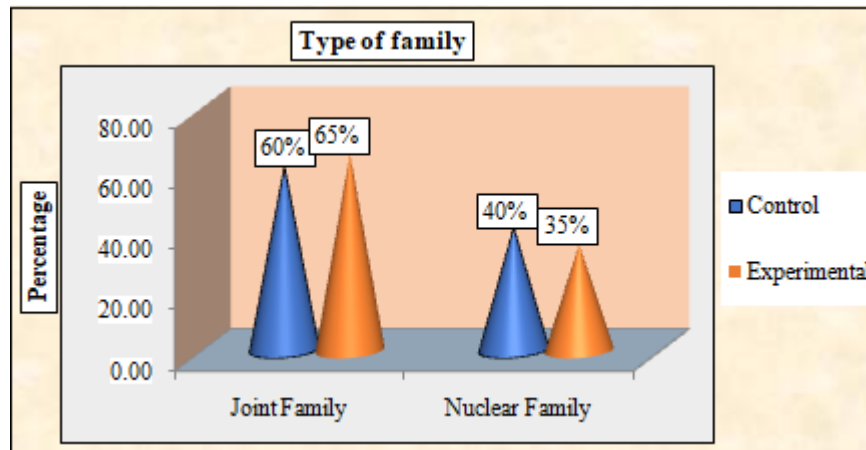
Graph 3: Cylindrical Graph Showing Frequency and Percentage Distribution of the Postnatal Mothers according to Type of Delivery

The above graph shows that, in the control group 12 (60%) mothers had delivered with normal delivery and 8 (40%) mothers delivered with LSCS. In the experimental group, 9 (45%) mothers delivered with normal delivery and 11 (55%) delivered with LSCS.



Graph 4: Pyramid Graph Showing Frequency and Percentage Distribution of the Postnatal Mothers according to Education

The above graph shows that, in the control group 6 (30%) of the mothers had completed primary education, 5 (25%) had completed secondary education and 9 (45%) of them had completed higher education. In the experimental group of the postnatal mothers, 12 (60%) of the mothers were educated up to primary, 5 (25%) up to secondary and 3 (15%) of them completed higher education.



Graph 5: Conical Graph Showing Distribution of the Postnatal Mothers according to Type of Family

The above graph shows that, in the control group 12 (60%) of the mothers were from joint family and 8 (40%) were from nuclear family.

In the experimental group, 13 (65%) of the mothers were from joint families and 7 (35%) from nuclear families.

Section II

Analysis of data related to the effectiveness of reflex zone therapy on lactation among postnatal mothers.

Table 2: Comparison Of Lactation Among Postnatal Mothers –Experimental Group (Paired ‘T’ Test), n=20

| Experimental | Mean | S. D. | ‘t’ value | ‘p’ value |
|--------------|------|-------|-----------|-----------|
| Pre - Test | 4.8 | 1.47 | | |
| Post - Test | 11.9 | 0.91 | 21.94 | 0 |

The comparisons of the pre - test and post - test mean scores of the lactation among postnatal mothers were done by paired t test. The pre - test average score was 4.80 with standard deviation of 1.47. The post - test average score was 11.90 with standard deviation of 0.91. The test statistics value of the paired t test was 21.94 with p value 0.00. The p value is less than 0.05, hence H₀ null hypothesis is rejected and alternative hypothesis (H₁) is accepted.

Hence, these findings conclude that, reflex zone therapy on lactation among postnatal mothers was effective.

Table 3: Comparison of Lactation among Postnatal Mothers – Experimental vs Control Group (Unpaired T Test), n=40

| Post Test | Mean | S. D. | ‘t’ value | ‘p’ value |
|--------------|------|-------|-----------|-----------|
| Experimental | 11.9 | 0.91 | | |
| Control | 9.45 | 1.23 | 7.14 | 0 |

The comparisons of the post - test mean scores of lactation among postnatal mothers from experimental group and control group were done by using unpaired t test. The post - test mean score of experimental group was 11.90 with standard deviation of 0.91. The posttest mean score of control group was 9.45 with standard deviation of 1.23. The test statistic value of the unpaired t test was 7.14 with p value 0.00. The p value of the test was less than 0.05, hence the null hypothesis (H₀) is rejected and alternative hypothesis (H₁) is accepted.

Hence these findings conclude that, there was significant difference in the lactation score among postnatal mothers from experimental group and control group admitted in selected hospitals.

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