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## A STUDY TO ASSESS THE EFFECTIVENESS OF OLIVE OIL MASSAGE ON PREVENTION OF BREAST ENGORGEMENT AMONG POST NATALMOTHERS, ADMITTED IN SELECTED HOSPITAL, AT JALNA, MAHARASHTRA.

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**ABSTRACT:** This quasi-experimental study was conducted to evaluate the effectiveness of olive oil massage on prevention of breast engorgement among postnatal mother's admitted in selected hospital, Jalna, Maharashtra. The research design used for the study was two group pre-test and post-test design. 40 postnatal mothers selected by non-randomized sampling technique. The pre-test done by using six-point breast engorgement scale. After pre-test, intervention was given as olive oil massage for 5 min up to 3 consecutive days. Then finally the post-test assessment was done to assess the effectiveness of olive oil massage on prevention of breast engorgement among postnatal mother's by using same six-point breast engorgement scale. Paired 't' test was used for data analysis. The study was conducted that the olive oil massage is effective to prevent breast engorgement.

**INTRODUCTION:** Post-natal mothers suffer much distress after child birth during first week, due to breast engorgement and pain is most commonly associated with breast engorgement. In a hospital setting, engorgement is often seen in mothers who had operative or caesarean birth. The incidence rate of breast engorgement all over the world is 1:8000 and in India it is 1:6500. Breast engorgement can occur due to common reasons such as suddenly increased milk production, delayed initiation of breastfeeding, infrequent feed, influence sucking, sudden change in breastfeeding routine and suddenly stopping breastfeeding.

The treatment for breast engorgement can be divided into medical and non-medical methods. Medical methods include administration of proteolytic enzymes such as serrapeptase, protease and subcutaneous oxytocin. To administer tablet bromocriptine 2.5 mg daily for 2-3 days in obstinate cases where the breast remains tight in spite of sucking and expression. Analgesic may also be administered. Non packs and haveremedies like olive oil massage.

Olive oil contain MUFA (mono unsaturated fatty acids) enriches the body with good fat and lower the effect of bad cholesterol, vitamin E strengthen immunity and vitamin K aids in faster healing. It acts as sensual massage oil, it reduces bad cholesterol level, makes

your blood vessel more elastic, help fight breast cancer. Olive oil breast massage is a simple (and it has not any side effect) cost effective and easy method of treating breast engorgement and pain and also effective for sore nipples.

**NEED FOR THE STUDY:** Olive oil has polyphenols which are very beneficial for skin. Polyphenol reduce inflammation protects from sun damage, prevent aging signs. Researches show that regular breast massage increase the blood circulation to keep the breast the risk of cancer. Massaging olive oil on breasts stimulates the tissue to improve elasticity and tone. Massage improves circulation of blood to make breasts feel relaxed healthier and firmer. The massaging process is also very helpful to remove toxins from the body. Olive oil on breasts massage can also be helpful for breast enlargement as it tones the tendons.

**STATEMENT OF THE PROBLEM:** A study to evaluate the effectiveness of olive oil massage on prevention of breast engorgement among post-natal mothers admitted in selected hospital, At Jalna, Maharashtra.

#### OBJECTIVE:

- To assess the pre-test level of breast engorgement among post-natal mothers both in the experimental and with control group.
- To assess the post-test level of breast engorgement among post-natal mothers both in the experimental and with control group.
- To compare the effectiveness of olive oil massage on prevention of breast engorgement between experimental and with control group.
- To find out the association between the effectiveness of olive oil massage on prevention of breast engorgement with selected demographic variables among post-natal mother.

#### HYPOTHESIS:

**H1:** There is significant difference between control group and experimental group among the post-natal mothers after intervention.

**H2:** There is significant association between the pre-test level breast engorgement with selected demographic variables.

**METHODOLOGY:** The methodology is the blueprint of the study. In other words, it outlines how the study will be conducted.

**Research Approach:** It is defined as the approach as a general set of orderly discipline procedure used to acquire information. Research approach used for study was quantitative approach.

**Research Design:** Researcher design used in this study was non-randomized control group design.

GRO UP	PRE-TEST	INTERVENTION	POST-TEST
Quasi experimental design (one group pre-test post-test)	Level of breast engorgement among post mothers before intervention	Olive Oil Massage	Effectiveness of olive oil on prevention of breast engorgement among post mothers.
Design	O1	X	O2

**Population:** The target population of the study constitute all the post-natal mothers who were admitted in selected hospital, Jalna.

**Description Of Study:** The study was conducted in Deepak Hospital, Jalna. It is located 1.8km away from Vasantrao Naik College of Nursing.

#### SAMPLING:

- **Sample:** Post-natal mothers who were admitted in selected hospital and who fulfilled the inclusion criteria.
- **Sampling Technique and Sample Size:** The investigator selected 40 post mothers through non-randomized sampling technique.
- **Criteria For Sample Selected:** The sample selection was based on the following inclusion and exclusion criteria.

#### Inclusion criteria

Post-natal mothers:

- Those who are willing to participate in this study.

- Those who are available at the time of data collection.
- Those who are complaining suffering from breast engorgement

### Exclusion criteria

Post-natal mothers:

- With gestational diabetes mellitus.
- Suffering from mastitis, breast abscess.

### VARIABLES:

**Independent variables:** Olive oil massage

**Dependent variable:** Prevention of breast engorgement.

**Description Of the Tool:** The tool consists of 2 sections.

### Section A: Demographic variables:

✚ The demographic variables comprised 9 items such as: age, education, occupation, parity, baby delivered gestational week, milkproduction, engorgement started day, duration of breast feeding, self-care method used for breast engorgement.

### Section B: Six-point engorgement scale to assess the level of breast engorgement

✚ It comprised of 6 score. Each item has its description of symptoms. The score was interpreted as 1,2,3,4,5 and 6 respectively. The minimum and maximum score were 1 and 6 respectively.

SCORE	DESCRIPTION
Score -1	Soft no change in breast, pain and fever
Score -2	Slight change in breast, pain and fever
Score -3	Firm, non-tender breast, pain and fever
Score -4	Firm, beginning tenderness in breast, pain and fever
Score -5	Firm, tender breast, pain and fever
Score -6	Very firm, very tender breast, pain and fever

**TECHNIQUES OF DATA COLLECTION:** Data collection is the process of acquiring and collecting information needed for the olive oil massage from post-natal mothers. There is collection of data as controlled population and accessible population. Samples were selected from experimental group by non-randomized sampling method.

### INTERVENTION:

Olive oil massage was practised for 3 minute per day for 3 days to the Experimental group.

### PROCEDURE:

1. Explain the procedure to the patient.
2. Get consent from them.
3. Take 2.5ml Olive oil on hands.
4. Apply around the Nipple and Areola.
5. Massage your Breast from armpit around Breast with circle way.
6. Push and press Acupoint and massage to absorbed easily.
7. Holds the breast outside to inside push.
8. Gently pat and smoothly massage from down to up.
9. Holds the breast outside to inside push and working into the underarm area as well as the centre of the breast. Press the Acupoint with your thumb as the above image for 3 minutes.

### METHOD OF DATA ANALYSIS:

**Paired T-test:** This test is used to find out effectiveness of olive oil massage on prevention of breast engorgement.

**Chi Square test:** Chi square test is used to find out pre-test level of breast engorgement to the association between selected demographic variables.

**RELIABILITY AND VALIDITY OF TOOL:**

- ❖ **Reliability:** Reliability has to do with the quality of measurement. In its everyday sense, reliability is the "consistency" or "repeatability" of measures. Reliability is the consistency of a set of measurements or measuring instrument. Reliability does not imply validity.
- ❖ **Validity:** A validity refers to getting results that accurately reflect the concept being measured. A valid measure to degree to which and instrument measure what it is supposed to be measuring. In practice, validity can also refer to the success of the research in retrieving "valid" result.

**PILOT STUDY:** The ethical clearance is obtained from Vasantrya Naik College of Nursing ethical committee. After getting content validity from nursing and medical expert, the pilot study was conducted in Selected Hospital at Jalna. A sample of postnatal mothers who met the inclusion criteria are selected by non-randomized control group sampling technique. The investigator introduced himself to the subjects and socio-demographic data is collected from each subject. Olive oil massage is given for 10 to 15 minutes in each breast twice a day with the interval of 6 hours in the experimental and control group for 3 consecutive days. The post test is conducted for both the experimental and control group. The results are analysed based on the scores obtaining breast engorgement by using standardized 6-point scale.

**METHOD OF DATA COLLECTION:** Structured Interview Schedule was used to collect the data based on the study objectives.

**DATA COLLECTION PROCEDURE:** The research investigator had taken ethical permission from the ethical committee of selected hospital, Jalna. The method used for data collection is as follows:

1. The research investigators introduced themselves and explained the purpose of study to post-natal mother.
2. The written informed was obtained from the subjects.
3. The data was collected by administration of modified standard six- point engorgement scale to the subject. Olive oil massage to be given to the subjects, following the Pre-test to the subjects.
4. The post test was carried out after the administration of olive oil massage for twice a day using the same tool.
5. Data collected was then tabulated and analysed.

**Plan for Data Analysis:** Data were collected, arranged and tabulated. Descriptive statistics like frequency, percentage and mean were used for categorical data. Inferential statistic was used to find out the effectiveness of olive oil massage on prevention of breast engorgement and Chi-Square test was used to find out pre-test level of breast engorgement to the association between selected demographic variables.

**RESULT:**

- ❖ The most of the post-natal mothers in experimental and control group were at the age of 24-29 years.
- ❖ Majority of post-natal mothers in experimental and control group have educational status upto primary school.
- ❖ Many of the post-natal mothers in experimental and control group were unemployed.
- ❖ Highest number of post-natal mothers in experimental and control group were multi para.
- ❖ Maximum of post-natal mothers in experimental and control group baby delivered at gestational week at 37-40.
- ❖ Largest numbers of post-natal mothers in experimental and control group where milk production is adequate.
- ❖ Most of the post-natal mothers in experimental and control group were having duration of feeding up to 11-20 mins.
- ❖ Maximum of post-natal mothers in experimental and control group, engorgement started from the 2nd day of delivery
- ❖ Almost number of post-natal mothers in experimental and control group were no selfcare method used for treatment of engorgement.
- ❖ In experimental group, 6(30%) had very tendered breast engorgement, 5(25%) each had no tendered and tendered breast engorgement 4(20%) had beginning tendered and none of the ample had no changes nor slightly changes in breast where as in control group 6(30%) had no tenderness, 5(25%) had tenderness 4(20%) had beginning tenderness and very tenderness and 1(5%) had slightly changes in breast. This show that majority of the postnatal mothers in experimental and control group were at the score 6 i.e., Maximum score (very tendered breast engorgement).
- ❖ The paired 't' test value was 9.963\* at the level of P 0.05. Since P value is less than 0.05 (P value = 0.0001) difference in scores is statistically significant. Researcher conclude at 5% level of significance and 19 degrees of freedom that the above data gives sufficient evidence to conclude that after receiving olive oil massage among postnatal mothers in experimental group is effective in reducing breast engorgement. Hence the researcher's hypothesis is accepted and the null hypothesis is rejected.
- ❖ After receiving olive oil massage among experimental group, the breast engorgement in experimental group means score 1.40 with SD 0.1, whereas in control group mean score was 3.35 with SD 0.31. **Hence, H1 is accepted.**
- ❖ Association between pre-test level of breast engorgement in control group with selected demographic variables. In order to compute the association between the level of breast engorgement and demographic variables chi-square was applied and the value - 59 - was observed with 5% significance level. Hence there is no significant association between the pre-test level of breast engorgement with selected demographic variables the researcher hypothesis H2 is rejected and will hypothesis is accepted. **Hence, H2 is rejected.**

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## TOOLS:

## SECTION: A : THE DEMOGRAPHIC PROFILE FOR POST NATAL MOTHERS.

N=40

SR.NO	DEMOGRAPHIC VARIBALES	NUMBER OF SAMPLES
1	Age[years]	18-23yrs
		24-29yrs
		30-34yrs
		36-40yrs
2	Educational Status	Illiterate
		Primary school
		High school
		Graduate& above
3	Occupation	Coolie
		Employee
		Business
		Unemployed
4	Parity	Primipara
		Multipara
		Grand multipara
5	Baby delivered at gestational week	<36 weeks
		At 37-40 weeks
		>40 weeks
6	Milk production	Absence of milk
		Adequate of milk
		Excessive production
7	Duration of feeding	0-10 mins
		11-20 mins
		21-30 mins
8	Engorgement started from delivered	1 <sup>st</sup> day
		2 <sup>nd</sup> day
		3 <sup>rd</sup> day
		4 <sup>th</sup> day
9	Selfcare method used for treatment of engorgement	Yes
		No

**SECTION: B : SIX POINT ENGORGEMENT SCALE TO ASSESS THE LEVEL OF BREAST ENGORGEMENT  
AMONG POST-NATAL MOTHERS:**

<b>SCORE</b>	<b>DESCRIPTION</b>
Score -1	Soft no change in breast, pain and fever
Score -2	Slight change in breast, pain and fever
Score -3	Firm, non-tender breast, pain and fever
Score -4	Firm, beginning tenderness in breast, pain and fever
Score -5	Firm, tender breast, pain and fever
Score -6	Very firm, very tender breast, pain and fever

