Effectiveness of almond oil massage on breast feeding adequacy among postnatal mothers who are undergone LSCS from selected hospitals

Ms. Nikita Pradeep Londhe¹, Dr. Mrs. Nilima R. Bhole²

¹M.sc Nursing (Obstetrics and Gynecology), Bharati Vidyapeeth (Deemed to be University) College of Nursing, Sangli, Maharashtra, India
²Dean, Faculty of Nursing And principal, Bharati Vidyapeeth (Deemed to be University) College of Nursing, Sangli, Maharashtra, India

DOI: 10.47750/jn.2022.13.508.147

Abstract
The growth and development of baby is aided by the mother's milk. Breastfeeding has various advantages for both mothers and their new born. Breast-feeding promotion is one of the World Health Organization's aims. Despite all of the activities, a large proportion of mothers need formula to feed their infants due to a lack of breast milk. Almond oil massage is a type of herbal traditional therapy that increases prolactin hormone adequacy, which increases mother's milk production. A study was conducted to see how effective almond oil massage is at enhancing postpartum women's breast milk adequacy. Pretest-posttest quasi experimental control group design was chosen as the study research design. To gather a sample of 100 postnatal mothers, purposive sampling approach was used with 50 postnatal mothers in the experimental group and 50 postnatal mothers in the control group. Only the experimental group received almond oil massages 3 times each day for 7 days. For both groups, the post-test was conducted on a daily basis. This study found that after receiving an almond oil massage, the amount of breast milk adequacy in the experimental group increased by 90% compared to the control group (80 percent). Almond oil massage, according to the study's findings, is an effective alternative therapy for improving breast milk sufficiency. Babies were observed for well attachment to breast, sucking and swallowing, relaxation during and after the feed, number of times urine passed in 24hrs, number of stool passed in 24hrs and duration of sleep after each feed.

Key words: Breast milk adequacy, postnatal mother, almond oil massage

Introduction:
“Breastfeeding is a gift to a mother, her child, and the environment.”

According to the WHO Breastfeeding is the normal way of providing young infants with the nutrients they need for healthy growth and development. Breastfeeding is one of the most effective methods for ensuring the health and life of a baby Breastfeeding is an experience of mother that is very unique to her. Whereas breastfeed is the perfect Way to help a child to connect to mother. Breastfeeding should begin as soon as possible after delivery and continue every 1 to 3 hours for the next 24 hours (8-12 times). Breastfeeding should be the exclusion source of nutrition for babies for the first Six months, depending on the mother’s and child’s circumstances (Adele pillereti,1999) Breastfed is important for lower incidences of gastrointestinal sickness, allergies, asthma, diabetes, Respiratory tract infection. Prevention is essential component for infants in tropical regions we all Know, breast milk is easily digestible and protects against infection, among other things. It is inexpensive And contains lactoferrin, which inhibits E.coli growth.

According to studies, 80% of babies who are breastfed grow up to be healthy (semin pennato,1979) Breastfeeding has been shown to be beneficial to both the mother and the baby's health and well-being. Breastfeeding should be started as soon as possible, according to the World Health Organization. A recent study
found that starting breast feeding at a young age can lower newborn mortality by 22%. In developing countries alone, early breast feeding could save up to 1.45 million lives per year, lowering mortality primarily due to diarrhoea and lower respiratory tract infection among children (Betty.R.S. ,1998). Many studies have revealed the benefits of herbs and essential oils, particularly almond oil, in the treatment of a variety of ailments.

Almond oil aids in the production of milk. The majority of studies on almond oil and breast milk adequacy revealed that massaging with almond oil aids in the promotion of breast milk adequacy. According to studies, massaging with almond oil two times a day helps to promote breast milk production (R.L. Bergmann 1996). During breastfeeding, approximately 0.20-0.5 grams per day of secretory Ig A antibodies pass to the baby via the milk. This is one of the most important features of colostrum.

A healthy mother may produce about 500-800 ml of the milk a day to feed her infant with about 500Kcl/day. The World Health Organization reports that in addition to more successful breastfeeding skin-to-skin contact between a mother and her newborn baby immediately after delivery also reduces crying, improves mother to infant interaction, and keeps baby warm. Hormones released during breastfeeding help to strengthen the maternal bond. It is essential for the optimal physical, emotional and mental development of child.

Breastfeeding is normal way of providing young infants with nutrient they need for healthy growth and development and enhances brain and visual development and help to prevents hypothermia. Mother who breast feed have lower rates of developing breast and ovarian cancer. It also reduces the risk of postpartum depression and creates a unique bonding experiences for mother and baby.

Breastfeeding is skill that the mother and child learn together. It can help protect babies against some short and long-term illness and diseases. Breastfeeding is also largely responsible for promoting healthy weight gain and reduces childhood obesity. Babies fed on the breast milk have higher amount of leptins responsible for regulating appetite and fat storage reducing obesity rate by 15-30% researches have also shown that babies who are breastfed have higher brain development compared to formula feed babies and have higher IQs. Breastfeeding leads to intestinal development and proper dentition in the newborn. Breastfeeding could prevent 20,000 maternal deaths due to breast cancer each year. Breastfeeding helps release oxytocin which helps the uterus return to normal size post-pregnancy and reduces bleeding after birth. Almond oil massage can help to increase milk production by promoting lactation hormones and clearing the milk ducts, which will help empty the breasts and trigger higher milk production. Mothers who massage their breast experience less breast pain, their babies breastfeed more and their milk contains less sodium.

Breast massage may have effect on relieving breast pain, and improving newborn suckling. Breast massage can be used to solve breast problem. Sometimes it can be difficult for a baby to latch onto a taut, hard breast. Massage can soften the breast and make it much easier for your baby to latch. The target of USDHHS ‘‘Healthy people 2010’’ initiative is to achieve breastfeeding at birthing 75%, 50% at 6 month and 25% at 12 months of life.

Almond oil is high in oleic and linolenic acid, two important fatty acids. The majority of studies on almond oil and breast milk adequacy revealed that massaging with almond oil aids in the enhancement of breast milk production. According to studies, massage with almond oil twice a day promotes the production of breast milk. (Bergmann, 2010). In a study from 2004, researchers foundon Massage may also help improve the flow of milk. An older study from 1994 suggests that the combination of suckling and massage works to both empty the milk ducts and encourage the production of more milk. Massage may also help to prevent and treat issues like engorgement, plugged milk ducts, or mastitis an infection of breast tissue. Breast milk production is thought to be boosted by almonds and cashews. According to studies, ingesting almond oil during lactation promotes milk production by aiding in vitamin B synthesis and globule emulsification. Fatty acids, proteins, calcium, and linoleic acids are all found in almond oil. It also has 6 grams of protein, 1.2 grams of iron, 70 milligrams of calcium, 3.3 grams of dietary fiber, 206 milligrams of potassium, 7.3 milligrams of vitamin E, 78 milligrams of magnesium, and 134 milligrams of phosphorus (Davis. V. ,2008).

Materials and methods:
A quantitative research approach was adopted for the present study with experimental pre test and post test control group. The independent variable was almond oil massage and dependent variable breast feeding...
adequacy. The present study setting was selected as per needs and criteria. The setting were the obstetrics and gynecology hospitals from sangli, miraj and kupwad corporation area. Population postnatal mothers with LSCS from selected hospitals from sangli,miraj and kupwad coporation area. The samples were LSCS mothers from maternity units of selected hospitals Sangli, mirajand kupwad.

Inclusion criteria was mothers who have undergone LSCS on 3rd postnatal day whereas the exclusion criteria was mothers who have skin allergic to almond oil. Sample size is 100 in which 50 experimental and 50 control. The sampling method used was non-probability purposive sampling method. Informed written consent was obtained from the mothers prior to conducting the study. Official permission was taken from concerned authorities. The investigators discussed the study with obstetrics from particular hospitals.

Researcher applied 2ml of almond oil over each breast by finger pads for a period of6 minutes two times a days following ( morning ,evening ) by stroking ,rubbing, kneading and manipulating the breast to milk production to participants from experimental group

The data collection tool included demographic data and self structured observational checklist. After an extensive review and study of literature, books and journals were done before developing the tool as well as discussion with guide was done and experts opinion also taken and the tool was developed under the guidance of the guide to collect the data.

The tool had two section, section -1 demographic data and section-2 observation checklist In section 1 demographic data contained age of mother, food habit, type of family, gravida, type of nipple, type of anesthesia, frequency of breast feeding per day.

To ensure the content validity of the tool was submitted to experts along with demographic data, observation checklist with suggested corrections needed changes were done with guide discussion and final tool was prepared.

Study was approved by Institutional ethical committee and permission was obtained from private hospitals based on the objectives of the study, frequency, percentage, mean, sd, were calculated to pre and post test score.

Results and Discussion

![Breast Feeding Adequacy - Experimental Group](image)

Table no 1 assessments of breast feeding Adequacy among postnatal mothers who are undergone LSCS

For the assessment purpose the total score of breast feeding Adequacy was divided in to three groups like low (0-2 score), moderate (3-5 score) and high (6-7score). Average breastfeeding Adequacy score at the time of pretest was 4.98 with standard deviation of 0.76. The minimum score was 3 with maximum score of 6.
Average breastfeeding Adequacy score at the time of posttest was 5.98 with standard deviation of 0.62. The minimum score was 5 with maximum score of 7.

**Figure No-2: General assessments of breastfeeding Adequacy (observation for baby)**

Average breastfeeding Adequacy score at the time of pretest was 4.96 with standard deviation of 0.78. The minimum score was 4 with maximum score of 7.

**Figure No-3: Comparison of the breast feeding Adequacy – Experimental group n=50**

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>S.D.</th>
<th>t value</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before</td>
<td>50</td>
<td>11.10</td>
<td>0.95</td>
<td>15.98</td>
<td>0.000</td>
</tr>
<tr>
<td>After</td>
<td>50</td>
<td>13.78</td>
<td>0.76</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The comparisons of the pretest and posttest means of the breastfeeding Adequacy were done by the paired t test. The pretest average score was 11.10 with standard deviation of 0.95. The posttest average score was 13.78 with standard deviation of 0.76.

**Table 4: Comparison of the breast feeding Adequacy – Control Group n=50**

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>S.D.</th>
<th>t value</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before</td>
<td>50</td>
<td>9.10</td>
<td>1.19</td>
<td>14.08</td>
<td>0.00</td>
</tr>
<tr>
<td>After</td>
<td>50</td>
<td>9.94</td>
<td>1.25</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The comparisons of the pretest and posttest means of the breast feeding Adequacy were done by the paired t test. The pretest average score was 9.10 with standard deviation of 1.19. The posttest average score was 9.94 with standard deviation of 1.25.

**Table 5: Comparison of the breast feeding Adequacy – Experimental vs Control n=100**

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>S.D.</th>
<th>t value</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>50</td>
<td>13.78</td>
<td>0.76</td>
<td>18.51</td>
<td>0.000</td>
</tr>
<tr>
<td>Control</td>
<td>50</td>
<td>9.94</td>
<td>1.25</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The comparisons of the posttest means of the breast feeding Adequacy were done by the unpaired t test. The posttest average score of experimental group was 13.78 with standard deviation of 0.76. The posttest average score control group was 9.94 with standard deviation of 1.25.

**Conclusion**

Massage with 2 mL almond oil on the breast has been found to be an effective breastfeeding intervention for increasing breast milk adequacy. When compared to other pharmaceutical treatments, almond oil has no adverse effects. In this intervention, sample satisfaction is significantly higher. The study's findings demonstrate that almond oil can be employed as a low nursing intervention for boosting breast milk adequacy.

**Acknowledgement**

The researcher want to acknowledge the authorities of B.V.CON and different hospitals used in the study and the study participants for the co-operation and all the stakeholders involve in completion of the research study.

**Funding sources**

The study was self-funded by researchers.

**References**

5. Hindawi Publishing Corporation Obstetrics and Gynecology International Volume 2012, Article ID 562704, 8 pages Research Article Breastfeeding Self-