The Effect of Breast Acupressure and Oxylosins Massage to Improve the Breast Milk Production in Postpartum Mother

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Abstract
Background: A little milk production in the first days of childbirth becomes an obstacle in breastfeeding. Acupressure can help maximize the prolactin and oxytocin receptors to address the insufficiency of breast milk production. The oxytocin massage is an attempt to stimulate the hormone oxytocin to accelerate milk production.

Objective: This study aims to determine the effect of breast acupressure and oxytocin massage on increasing milk production in postpartum mothers in general hospitals of Ungaran, Indonesia.

Methods: This study used quasi-experiment with post-test design only design and with a control group, conducted on 26 respondents with total sampling technique that fulfilled inclusion criteria. Data were analyzed with an independent t-test.

Results: The results of the research showed that the difference between mean and treatment group was 282.31 and control group 218.08 was with p-value = 0.000 (< 0.05).

Conclusion: This study recommends that patients independently perform breast acupressure and oxytocin massage.

Keywords: breast acupressure, oxytocin massage, milk production, postpartum.

Introduction
Breast milk is a new baby food in addition to being a complete nutrient for newborns, and can also provide immunity and increase the bond between mother and child (Sham, 2001). Breast milk contains nutrients needed by infants to grow and develop. The importance of exclusively breastfeeding newborns to 6 months of age and continuing to breastfeed until a 24-month-old child has substantial evidence (Hanum, 2016). In postpartum mothers, there are some who do not immediately remove breast milk after delivery because breast milk expenditure is a very complex interaction between mechanical stimulation, nerves and various hormones that affect spending of oxytocin. Some of the factors that influence the production of breast milk are lacking in the preparation of the nipple first and the absence of oxytocin reflexes (Maryuni, 2012). In breastfeeding problems that do not come out in the first days of life, the baby should be anticipated since pregnancy through lactation counseling. About 60% of people know information about breastfeeding and only about...
40% of skilled health workers can provide breastfeeding advice. So the need for a solution for mothers to prevent the provision of formula milk because of early breastfeeding problems caused by breast milk did not come out on the first day. Uncertain mother's feelings can feed her baby because her condition will cause a decrease in oxytocin so that breast milk can not come out immediately after delivery and eventually the mother decides to give the canned formula milk (Mas'adah, 2015). Techniques to multiple breast milk production include breast care treatments, breast gymnastics, breast massage, and oxytosine massage (Setyowati, 2015). Acupressure is the act that can help maximize the prolactin and oxytocin receptors and minimize the side effects of delayed breastfeeding by infants. Acupressure points for lactation through the meridian point according to the organ to be addressed (Rahayu, 2015).

Based on Rahayu (2015), the technique of acupressure point for lactation and oxytocin massage to increase milk production in postpartum mothers can both increase comfort in postpartum mother while increasing milk production. Massage of oxytocin and breast acupressure at the general hospital of Ungaran, Indonesia has not frequently been done if there is a postpartum mother who is experiencing breast milk insufficiency. Based on this background, the research on the influence of breast acupressure and oxytocin massage on increasing breast milk production in postpartum mothers in Ungaran hospital was conducted.

**Materials and Method**

The design used in this study was a quasi-experiment of two groups aiming to see the presence or absence of the effect of breast acupressure and oxytocin massage to increase milk production in treated and untreated postpartum mothers using post test only with control group design. The study population is the postpartum mother in Ungaran Hospital. The study sample used inclusion criteria including postpartum mother on day 1, the infant was not given formula milk during the research, and nipple form on both breasts are protruding. Exclusive criteria include mother experiencing labor complications, the mother with breast anatomy disorder, and born baby dies. This research used total sampling (Sugiyono 2012). The samples obtained as many as 26 respondents. Normality test data applied Shapiro-Wilk test. Shapiro-Wilk test is said to be normal data distribution if p value > 0.05. In this research, we get Shapiro-Wilk test of data distribution in 0.295 treatment group and control group 0.248. Due to the standard data distribution then the analysis was tested with the independent t-test.

**Results**

Most respondents were 19 and 25 years old (11.5%), junior high school (42.3%), housewives (80.8%), and parity of multipara (76.9%).

**Table 4.1** Distribution of respondent characteristics based on breast milk production

| Breast milk production | Treatment | Control |
|------------------------|-----------|---------|
| (< 250 ml)             | 0         | 10      |
| (250-400 ml)           | 13        | 3       |
| Total                  | 100.0     | 100.0   |

Table 4.1 shows that respondents based on breastmilk production treated with breast acupressure and oxytocin massage who produced 250-400 ml were 13 respondents (100%) and who were not treated with breast acupressure and oxytocin massage (<250 ml) were ten respondents (76.9%).

**Table 4.2** Differences in breastfeeding production of postpartum mothers in treatment and control groups

| Group    | n  | Mean   | SD    | P- Value |
|----------|----|--------|-------|----------|
| Treatment| 13 | 282.31 | 15.35 | 0.000    |
| Control  | 13 | 218.08 | 32.62 |          |

Based on Table 4.2, it is known the result of analysis of variation of breast milk production on the postpartum mother to breast acupressure group.
and oxytocin massage with control group statistically. The result of the statistical test using Independent t-test was obtained p-value 0.000 (<0.05) so it is concluded that there is influence between breast acupressure treatment group and oxytocin massage with the group not given treatment of breast acupressure and oxytocin massage to increase milk production in postpartum mother at the general hospital of Ungaran, Indonesia.

Discussion
Data analysis of breast acupressure and oxytocin massage showed that 26 mothers with age, education, occupational, and parity characteristics had met the inclusion criteria. Most are at the age of 19 and 25 years (11.5%), then the lowest age is 16 years (3.8%). The age is one factor that can affect milk production for mothers who are younger will produce more breast milk compared with older mothers (Biancuzoo, 2003). A mother aged 19-23 years old can produce enough milk compared to the ones in their thirties. The characteristics of education level are parents with elementary education (19.2%), junior high (42.3%), high school (34.6%), University (3.8%). Winkvist (2015) states that a person's educational level cannot be a guideline that a person will succeed during the breastfeeding process, but the correct and accepted information about the breastfeeding process will determine the success of the breastfeeding process. An individual who has the low education but obtains accurate information about breastfeeding will succeed in breastfeeding so that breastfeeding health education needs to be given to the mother during pregnancy so that she has the confidence to succeed in breastfeeding.

Moore (2006) shows that breastfeeding success is not determined by maternal education level but by information about breastfeeding received by the mother at prenatal. The postpartum mother needs education about breastfeeding at prenatal and the information given should be consistent and realistic. The results also showed that mothers whose milk production was smooth were mostly low-educated in each measurement.

In the characteristic of the job, the parents who work as entrepreneurs (19.2%), and homemakers (80.8%). A working mother affects breast milk production even to the mother has been explained about breastfeeding techniques (Suradi, 2004). Working is not an excuse to stop breastfeeding exclusively, even though maternity leave is only three months. With the correct knowledge of breastfeeding, breastfeeding equipment of a working mother can provide exclusive breastfeeding (Biancuzoo, 2003). Besides that, it is followed by the result of parity characteristic analysis that is primipara (23.1%), multipara (76.9%). Mothers with more than one parity will have an average breastfeeding rate faster than first-parity mothers (Soetjiningsih, 2005). Furthermore, the study revealed that 13 mothers treated with breast acupressure and oxytocin massage produce milk production of a number (250-400) ml, and those not treated with breast acupressure and oxytocin massage mostly had breast milk production (<250 cells / mm³), that of 10 mothers and 3 mothers having a milk production of (250-400) ml.

This study is in line with research conducted by Setyowati (2015) that after the administration of oxytocin massage, breastfed mothers' milk production is greater than untreated and supported with the p-value = 0.000, which means postpartum mothers do massage oxytocin produces more milk when compared with mothers who do not do massage of oxytocin. Research conducted by Himma (2014) showed that there was a significant difference in the production of breast milk before and after a combination of front massage method (breast care) and rear message (oxytocin massage) in nursing mothers 0-3 months.

This study was also supported by Mardiyaningsih (2010) that post-caesarean mother who was given oxytocin massage was six times more likely to have a smooth milk production than the control group.
The results of this study prove that giving breast acupressure and oxytocin massage will facilitate the production of breast milk in postpartum mothers. By doing breast acupressure and oxytocin massage at the central points in the chest and on the mother's back provides comfort to the mother. Physiologically it stimulates oxytocin reflexes or let down reflux to secrete hormonocytosine into the blood. This oxytocin causes the myoepithelium cells around the alveoli to contract and make the milk flow from the alveoli to the ductules to the sinuses and nipples and then inhaled by the baby. The more fluent breast milk expenditure, the more milk production. As Mardiyaningsih disclosed (2010) with the massage of oxytocin mother will feel relaxed, more comfortable, fatigue after childbirth will be lost so that by doing massage will stimulate the hormone oxytocin and milk will quickly come out. As expressed Mardiyaningsih (2010) with the mother's oxytocin massage will feel relaxed, more comfortable, fatigue after childbirth will be lost so that by doing massage will stimulate the hormone oxytocin and milk will quickly come out. The results of this study are in line with research conducted by Rahayu (2015) on mother's milk production with intervention acupressure point for lactation and oxytocin massage" that contains comfort in the postpartum mother as well as increase and expenditure of milk production. Mothers who performed acupressure have greater comfort levels and more milk production than mothers who received oxytocin massage. However, oxytocin massage is more effective at increasing the comfort and production of breast milk in postpartum mothers than mothers who do not get any intervention. Judging from the mean differences in breastmilk production growth, in the control group 27.22, in the oxytocin massage group 34.44.

**Conclusion**
The results of the analysis using independent t-test showed p-value of 0.000 (p<0.05) which means there is a difference between the group treated with breast acupressure and the oxytocin massage with the group not treated with breast acupressure and oxytocin massage. Thus, there is a significant effect between the group performed breast acupressure and oxytocin massage with the ones did not conduct breast acupressure the oxytocin massage to increase milk production in postpartum mothers at Ungaran Hospital, Indonesia.

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