Relationship of Oxytocin Massage, Breast Care, and Family Support to Smooth Breast Milk Production at Tambun "X" Homecare Clinic Selatan Bekasi Tahun 2022

Bella Setia Ayu Widyantika¹, Hedy Hardiana², Shinta Mona Lisca³
Indonesia Maju University¹,²,³
Email correspondent: Abellasetia@gmail.com¹

Abstract

Introduction: Breast milk is milk produced by mothers and contains nutrients that are needed by babies for their growth and development needs. Oxytocin massage, breast care, and family support are factors that influence the smooth production of breast milk.

Objectives: This study aims to determine the relationship between oxytocin massage, breast care, and family support with the smooth production of breast milk at the Homecare Clinic X Tambun Selatan Bekasi.

Method: The type of research used in this study is descriptive-analytic with a cross-sectional approach. The data collection technique used is quantitative. The population used in this study were all breastfeeding mothers who were examined at the Tambun Selatan Bekasi Homecare Clinic "X" as many as 169 breastfeeding mothers. The number of research samples was 63 respondents using a purposive sampling method with the Slovin formula. The instrument used in this study was using a Likert scale questionnaire to measure the variables of oxytocin massage, breast care, and family support as well as the Guttman scale to measure the smoothness of milk production. Bivariate analysis using chi-square.

Result: The results showed that there was a significant relationship between oxytocin massage and smooth milk production with a P-value of 0.000, breast care with smooth milk production with a P-value of 0.039, family support with smooth milk production with a P-value of 0.006.

Conclusion: This study concludes that there is a relationship between the variables oxytocin massage, breast care, and family support with the smooth production of breast milk at the Homecare X Clinic Tambun Selatan Bekasi in 2022.

Keywords: breast care, family support, oxytocin massage, smooth milk production

Introduction

The development of a healthy Indonesia can be realized by changing unhealthy attitudes into healthy attitudes and creating healthy areas in households, schools or places of activity. One of the markers of a healthy living attitude in the household is the provision of special
Oxytocin Massage, Breast Care, and Family Support to Smooth Breast Milk Production

Widyantika et al.
Vol: 02(02)

Mother's milk (ASI) is the best life solution that is needed by babies up to 6 (six) months because it has a very complete and perfect vitamin composition for the development and progress of babies in meeting the baby's vitamin needs during the first 6 months. In fact, only 39 percent of babies in the world are exclusively breastfed. Starting breastfeeding within the first days after birth can reduce the risk of death in newborns by up to 45 percent. Infants who receive exclusive breastfeeding are 14 times more likely to survive the first 6 (six) months of life compared to infants who do not receive exclusive breastfeeding. Research conducted in the United States and the United Kingdom proves that there are major savings in health services because children who receive exclusive breastfeeding are less likely to get sick compared to children who do not receive exclusive breastfeeding.

Information from the World Health Organization in 2017 it is estimated that 130 million babies are born on earth each year and 4 million babies die in the first 28 days of their lives. Lowering the morbidity score, the World Health Organization recommends that newborns receive very little exclusive breastfeeding (without additional food) for 6 months. At the 65th global health conference, the countries of the World Health Organization set a target in 2025 to report that at least 50 percent of the number of babies under 6 months will receive exclusive breastfeeding. Information from the World Health Organization in 2016 proves that in general, exclusive breastfeeding on earth is around 38 percent. In 2020 the World Health Organization again outlined the information in the form of the value of special breastfeeding in an outline, even though there has been an increase, this value has not increased significantly, namely around 44 percent of babies aged 0-6 months around the world who get special breastfeeding throughout the 2015-2020 timeframe of the 50% target of special breastfeeding according to the World Health Organization. Meanwhile, the low level of special breastfeeding will affect the quality and vitality of the next generation. Overall, in 2019, 144 million babies are estimated to be stunted, 47 million are estimated to be underweight, and 38.3 million are overweight or obese.

The results of the study by the Central Bureau of Statistics, the percentage of babies aged less than 6 months who are exclusively breastfed is 66.69 percent in 2019, in 2020 it will increase to 69.62 percent, and in 2021 it will also increase to 71.58 percent. The number of exclusive breastfeeding is quite large at over 50 percent, but from this information, it still appears that many babies in Indonesia aged less than 6 months have found MP-ASI. 33.31 percent of babies found MP-ASI at the age of 6 months in 2019, in 2020 giving MP-ASI to babies at the bottom of 6 months was 30.38 percent, and in 2021 it was 28.42 percent. The reach of exclusive breastfeeding in West Java recently reached 53 percent. Bekasi Regency itself has a level of exclusive breastfeeding of 53.97 percent.

One of the aspects that can increase the percentage of exclusive breastfeeding is the smooth production of breast milk. Unsmooth production of breast milk in the early days after delivery can be caused by mental comfort, nutrition, mother's rest, baby sucking, use of contraceptives, and breast care or breast care. Other triggers that affect the smooth production of breast milk are family support and oxytocin massage.

Wulandari et al's research show that there is a bond between oxytocin massage and the smooth production of breast milk. The results of the research show that there is an important average comparison between the production of breast milk after carrying out the first, second and third oxytocin massages. The creation of breast milk during the initial oxytocin massage increased milk production by 1.37 cc, the second oxytocin massage produced 1.77 ccs of breast
milk, and the third oxytocin massage increased breast milk by 2.87 ccs.9 The results of Damanik's research show that postpartum mothers who take care of their breasts while breastfeeding have a good effect on the smooth flow of breast milk so that there is no breast milk dam. The action of caring for the breasts will launch the milk ejection reflex. The research concludes that there is a bond between the maintenance of breasts or breast care in postpartum mothers with the smooth production of breast milk.10 The results of the research that Ningsih has done and endure show that there is a link between family support and the smooth production of breast milk. The results obtained p value = 0.049 which means there is a bond. This is because the family is an important part of the success or failure of breastfeeding. After all, the family determines the smoothness of the reflexes of breastfeeding which are greatly influenced by the feelings and anger of the postpartum mother.11

The consequences that stick out if a breastfeeding mother encounters a problem with breast milk production is that breast milk dams, mastitis, can even cause breast swelling. Unsmooth milk production can also lead to a lack of nutrition in infants, which results in the formation of a deficiency in vitamin intake, which can even increase the risk of death in newborns. Based on information obtained from the register book of the "X" Homecare Clinic, it is known that from June 2022 to August 2022 there were 71 breastfeeding mothers who carried out checks and breast care procedures and oxytocin massage. Preliminary research information conducted in August 2022 was obtained if 4 out of 6 breastfeeding mothers (66.7 percent) experienced difficulty in milk production, whereas 2 out of 6 breastfeeding mothers (33.3 percent) said they had easy milk production. Based on the background that the researchers have described, this study aims to determine the relationship between oxytocin massage, breast care, and family support with smooth milk production at Homecare Clinic X Tambun Selatan Bekasi.

Method

The type of research used in this study is descriptive analytics with a cross-sectional approach. The data collection technique used is quantitative. The population used in this study were all breastfeeding mothers who were examined at the Tambun Selatan Bekasi Homecare Clinic "X" as many as 169 breastfeeding mothers. The number of research samples was 63 respondents using a purposive sampling method with the Slovin formula. The instrument used in this study was using a Likert scale questionnaire to measure the variables of oxytocin massage, breast care, and family support as well as the Guttman scale to measure the smoothness of milk production. The instrument test used the SPSS validity test by comparing the r count with the table and the results obtained for all variable statement items in the study were declared valid. The analysis used by univariate analysis was carried out to provide a general description of the variables studied with percentages to presentation in tabular form and frequency distribution as well as bivariate analysis using chi-square.

Results

Univariate Analysis Results

Table 1. Results of Univariate Analysis of Characteristics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Characteristic</th>
<th>Frequency</th>
<th>Percentage (%)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>&lt; 20 years</td>
<td>5</td>
<td>7.9</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>20-35 Years</td>
<td>58</td>
<td>92.1</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>SD</td>
<td>2</td>
<td>3.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>JUNIOR HIGH SCHOOL</td>
<td>5</td>
<td>7.9</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>SENIOR HIGH SCHOOL</td>
<td>46</td>
<td>73.0</td>
<td></td>
</tr>
</tbody>
</table>
Based on table 1, shows that the number of breastfeeding mothers who carried out examinations at the Home Care Clinic X Tambun Selatan Bekasi totaled 63 mothers, of which 5 (7.9%) breastfeeding mothers were less than 20 years old, and 58 (92.1%) mothers breastfeeding has an age between 20 to 35 years. Mothers with a history of primary school education were 2 (3.2%) breastfeeding mothers, mothers with a history of junior high school education 5 (7.9%) breastfeeding mothers, mothers with a history of high school education 46 (73.0%) breastfeeding mothers, and 10 (15.9%) mothers with D3/S1 education history were breastfeeding mothers. Breastfeeding mothers who had 1 child totaled 30 (47.6%) mothers, had 2-3 children totaled 31 (49.2%) mothers, and who had > 3 children totaled 2 (3.2%) mothers.

**Table 2. Univariate Analysis of Oxytocin Massage**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast Care</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Often</td>
<td>54</td>
<td>85.7</td>
</tr>
<tr>
<td>Sometimes</td>
<td>9</td>
<td>14.3</td>
</tr>
<tr>
<td>Breast Care</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Often</td>
<td>54</td>
<td>85.7</td>
</tr>
<tr>
<td>Sometimes</td>
<td>9</td>
<td>14.3</td>
</tr>
<tr>
<td>Family support</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support</td>
<td>46</td>
<td>73.0</td>
</tr>
<tr>
<td>Less Support</td>
<td>17</td>
<td>27.0</td>
</tr>
<tr>
<td>Smooth Milk Production</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fluent</td>
<td>47</td>
<td>74.6</td>
</tr>
<tr>
<td>Not that smooth</td>
<td>16</td>
<td>25.4</td>
</tr>
</tbody>
</table>

Based on table 2, shows that the number of breastfeeding mothers who carried out checks at the Home Care Clinic X Clinic Tambun Selatan Bekasi totaled 63 mothers, of which 48 (76.2%) breastfeeding mothers often did oxytocin massage, and 15 (23.8%) breastfeeding mothers sometimes do oxytocin massage. The number of breastfeeding mothers who underwent examinations at the Home Care X Clinic Tambun Selatan Bekasi was 63 mothers, of which 54 (85.7%) breastfeeding mothers often did breast care, and 9 (14.3%) breastfeeding mothers sometimes did breast care. The number of breastfeeding mothers who underwent examinations at the Tambun Selatan Bekasi Home Care X Clinic amounted to 63 mothers, of which 46 (73%) breastfeeding mothers received support from their families, and 17 (27%) breastfeeding mothers received less support from their families. The number of breastfeeding mothers who underwent examinations at the Tambun Selatan Bekasi Home Care X Clinic amounted to 63 mothers, of which 27 (74.6%) breastfeeding mothers had smooth milk production in the smooth category, and 16 (25.4%) breastfeeding mothers with low production categories. Substandard milk.

**Results of Bivariate Analysis**

**Table 3. Results of bivariate analysis of the relationship between oxytocin massage and smooth milk production**

<table>
<thead>
<tr>
<th>Oxytocin Massage</th>
<th>Smooth Milk Production</th>
<th>P-Value</th>
<th>OR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fluent</td>
<td>Not that smooth</td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td>f</td>
<td>%</td>
<td>f</td>
</tr>
</tbody>
</table>

Widyantika et al. Vol: 02(02) 167
Based on Table 3, it is known that the relationship between the oxytocin massage variable and the smooth production of breast milk in breastfeeding mothers at the Homecare X Clinic shows that out of 48 breastfeeding mothers who often do oxytocin massage, 43 nursing mothers (89.6%) have smooth milk production and as many as 5 (10.4%) breastfeeding mothers had smooth milk production, and out of 15 breastfeeding mothers who occasionally did oxytocin, 4 pregnant women (26.7%) had smooth milk production and 11 breastfeeding mothers (73.3%) have smooth milk production that is not smooth. The results of statistical tests using Chi-Square obtained a P-value of 0.000 ≤ 0.05. It can be concluded that H0 is rejected, meaning that there is a significant relationship between oxytocin massage and smooth milk production. The p-value is obtained based on the 2x2 table Chi-Square test with expected count results of more than 5, so read the p-value in the continuity correction column. From the analysis results, the Odds Ratio (OR) value = 23.650 (5.426-103.080), which means that breastfeeding mothers who frequently do oxytocin massage have a 23.650 times chance of getting smooth milk production compared to breastfeeding mothers who occasionally do oxytocin massage.

The relationship between the variable breast care and the smooth production of breast milk in breastfeeding mothers at the Homecare X Clinic showed that out of 54 breastfeeding mothers who often did breast care, 43 breastfeeding mothers (91.5%) had smooth milk production and 11 (27.9%) breastfeeding mothers have smooth milk production, and of the 9 breastfeeding mothers who occasionally do breast care, 4 pregnant women (41.6%) have smooth milk production and 5 breastfeeding mothers (58.4%) have smooth milk production substandard milk production. The results of statistical tests using Chi-Square obtained a P-value of 0.039 ≤ 0.05, so it can be concluded that H0 is rejected, meaning that there is a significant relationship between breast care and smooth milk production. The p-value is obtained based on the Chi-Square test table 2x2 with an expected count of less than 5, so read the p-value in Fisher's exact column. From the results of the analysis, the Odds Ratio (OR) value was obtained = 4.886 (1.121-21.298), which means that breastfeeding mothers who frequently perform breast care have a 4.886 chance of getting smooth milk production compared to breastfeeding mothers who occasionally do breast care.

The relationship between family support and smooth milk production in breastfeeding mothers at the Homecare X Clinic showed that out of 46 breastfeeding mothers who received support from their families, 39 breastfeeding mothers (84.8%) had smooth milk production and 7 (15.2%) breastfeeding mothers had smooth milk production, and out of 17 breastfeeding mothers who did not receive support from their families, 8 pregnant women (47.1%) had smooth milk production and 9 breastfeeding mothers (52.9%) had smooth milk production. substandard milk production. The results of statistical tests using Chi-Square obtained a P-value of 0.006 ≤ 0.05, so it can be concluded that H0 is rejected, meaning that there is a significant relationship between family support and the smooth production of breast milk. The p-value is obtained based on the Chi-Square test table 2x2 with an expected count of less than
5, so read the p-value in Fisher's exact column. From the analysis, results obtained Odds Ratio (OR) = 3.630 (1.060-12.424), which means that breastfeeding mothers who receive support from the family have a 3.63 times chance of getting smooth milk production compared to breastfeeding mothers who do not receive support from the family.

Discussion

Relationship between Oxytocin Massage and Breast Milk Production

Based on the results of a study conducted on breastfeeding mothers who underwent examinations at the Homecare X Clinic, it was found that out of 48 breastfeeding mothers who often did oxytocin massage, 43 breastfeeding mothers (89.6%) had fluency in milk production and 5 (10.4%) breastfeeding mothers had smooth milk production, and of the 15 breastfeeding mothers who occasionally did oxytocin, 4 pregnant women (26.7%) had smooth milk production and 11 breastfeeding mothers (73.3%) had smooth production of milk that is not smooth. The results of statistical tests using Chi-Square obtained a P-value of 0.000 ≤ 0.05. It can be concluded that H0 is rejected, meaning that there is a significant relationship between oxytocin massage and smooth milk production. From the analysis results, the Odds Ratio (OR) value = 23.650 (5.426-103.080), which means that breastfeeding mothers who frequently do oxytocin massage have a 23.650 times chance of getting smooth milk production compared to breastfeeding mothers who occasionally do oxytocin massage.

This research is in line with research conducted by Setiowati in 2017 with the research title "Relationship of oxytocin massage with smooth milk production in postpartum mothers section cesarean days 2-3" showing the results that out of 35 postpartum mothers who did oxytocin massage according to the procedure, as many as 24 (50%) postpartum mothers had smooth milk production and 11 (22.9%) postpartum mothers had slow milk production. Meanwhile, of the 13 postpartum mothers who did not do oxytocin massage according to the procedure, 2 (4.2%) postpartum mothers had smooth milk production and 11 (22.9%) postpartum mothers had slow milk production. Statistical test results obtained p = 0.003 <0.05, thus Ha is accepted, which means that there is a significant relationship between oxytocin massage and the smooth production of breast milk.12

In this oxytocin massage variable, a breastfeeding mother needs to do oxytocin massage frequently or regularly to help expedite milk production. Oxytocin massage is a solution to overcome problems related to non-smooth milk production. Oxytocin massage is carried out by massaging along the spine (vertebrae) to the fifth-sixth costal bones and is an attempt to stimulate the hormones prolactin and oxytocin after childbirth.5

Thus the researchers concluded that oxytocin massage can affect the smooth production of breast milk because the smooth production of breast milk is influenced by the hormones oxytocin and prolactin oxytocin massage is done.

Relationship between Breast Care and Smooth Milk Production

Based on the results of research that was conducted on breastfeeding mothers who underwent examinations at the Homecare X Clinic, it was found that out of 54 breastfeeding mothers who often did breast care, 43 breastfeeding mothers (91.5%) had fluency in milk production and 11 (27.9%) breastfeeding mothers had smooth milk production, and of the 9 breastfeeding mothers who occasionally did breast care, 4 pregnant women (41.6%) had smooth milk production and 5 breastfeeding mothers (58.4%) had smooth production of milk that is not smooth. The results of the statistical test using Chi-Square obtained a P-value of 0.039 ≤ 0.05, so it can be concluded that H0 is rejected, meaning that there is a significant relationship between breast care and smooth milk production. From the results of the analysis,
the Odds Ratio (OR) value was obtained = 4.886 (1.121-21.298), which means that breastfeeding mothers who frequently perform breast care have a 4.886 chance of getting smooth milk production compared to breastfeeding mothers who occasionally perform breast care.

This research is in line with research conducted by Damanik in 2020 with the research title "Relationship between breast care and smooth breastfeeding in postpartum mothers" showing that out of 18 postpartum mothers who performed breast care, 14 (77.8%) postpartum mothers had smooth milk production and 4 (22.2%) postpartum mothers had milk production that was not smooth. Meanwhile, of the 22 postpartum mothers who did not perform breast care, 6 (27.3%) postpartum mothers had smooth milk production and 16 (72.7%) postpartum mothers had irregular menstrual cycles. Statistical test results obtained p = 0.004 <0.05, thus Ha is accepted, which means that there is a significant relationship between breast care and smooth milk production.10

In this variable breast care, postpartum mothers need to do breast care or breast care to be able to facilitate milk production. Breast care measures are carried out to facilitate blood circulation and prevent blockages in the milk production channels.13

Thus the researchers concluded that by doing breast care routinely or frequently, the ducts of the milk glands become stable and avoid blockages so that milk production will run smoothly.

**Relationship between Family Support and Smooth Milk Production**

Based on the results of a study conducted on breastfeeding mothers who underwent examinations at the Homecare X Clinic, it was found that out of 46 breastfeeding mothers who received support from their families, 39 breastfeeding mothers (84.8%) had fluency in milk production and 7 (15, 2%) breastfeeding mothers had substandard milk production, and out of 17 breastfeeding mothers who did not receive support from their families, 8 pregnant women (47.1%) had smooth milk production and 9 breastfeeding mothers (52.9%) had substandard milk production. The results of statistical tests using Chi-Square obtained a P-value of 0.006 ≤ 0.05, so it can be concluded that H0 is rejected, meaning that there is a significant relationship between family support and the smooth production of breast milk. From the analysis, results obtained Odds Ratio (OR) = 3.630 (1.060-12.424), which means that breastfeeding mothers who receive support from the family have a 3.63 times chance of getting smooth milk production compared to breastfeeding mothers who do not receive support from the family.

This research is in line with research conducted by Kusumaningrum in 2016 with the research title "The relationship between family support and breastfeeding in postpartum mothers on day 3 at DR. Soegiri Lamongan "showed the results that postpartum mothers who received good breastfeeding support came out as much as 9 or 90.0%, enough breastfeeding support did not come out as many as 10 or 66.7% and support for insufficient breastfeeding did not come out as much as 4 or 80.0%. Statistical test results obtained p = 0.004 <0.07 thus Ha is accepted, which means that there is a significant relationship between family support and the smooth production of breast milk.14

In the family support variable, a postpartum mother needs to get good support from her family during the breastfeeding process. Family support is a form of interpersonal relationship that protects a person from the effects of stress.15

Thus the researchers concluded that family support affects the smooth production of breast milk because, with positive support from the family during the breastfeeding process, the mother will feel comfortable, relaxed, and avoid stress. With such comfortable conditions,
it will affect the production of the hormones oxytocin and prolactin for the better so that milk production becomes smooth.

**Conclusion**

Based on the results of research that was conducted in August 2022 with the title "Relationship of Oxytocin Massage, Breast Care, and Family Support with Smooth Milk Production at Homecare Clinic X Tambun Selatan Bekasi in 2022", it can be concluded that: 1) The variable frequency distribution of oxytocin massage is 48 breastfeeding mothers often do oxytocin massage and 15 breastfeeding mothers sometimes do oxytocin massage, variable breast care as many as 54 breastfeeding mothers often do breast care and 9 breastfeeding mothers sometimes do breast care, family support variable is as many as 46 breastfeeding mothers get support from the family and 17 breastfeeding mothers did not get support from the family, as well as variables of the smoothness of milk production as many as 47 breastfeeding mothers had a smooth milk production category and 16 breastfeeding mothers had a smooth milk production category and 16 breastfeeding mothers had a category of smooth milk production that was not smooth. 2) There is a relationship between oxytocin massage and smooth milk production at the Homecare Clinic X Tambun Selatan Bekasi with a P-value of 0.000 because the P-value ≤ α (0.05). 3) There is a relationship between breast care and smooth milk production at the Homecare Clinic X Tambun Selatan Bekasi with a P-value of 0.039 because the P-value is ≤ α (0.05). 4) There is a relationship between family support and smooth milk production at the Homecare Clinic X Tambun Selatan Bekasi with a P-value of 0.006 because the P-value ≤ α (0.05).

**References**

2. Indonesia IDA. Nilai nutrisi air susu ibu. Jakarta Penerbit IDAI. 2013;