

# THE EFFECT OF OXYTOSIN MASSAGE ON BREASTFEEDING PRODUCTION

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## ABSTRACT

According to Healthy Demographic Indonesia Survey the mortality rate (IMR) is still high, 32/1,000 live births. Today is around 40% of under-five deaths occur in the first month of a baby's life, with breastfeeding reduces infant mortality by 22% under 28 days, child mortality can be prevented by early eksklusif breastfeeding.

So that, the knowing massage effect of oxytocin on breastfeeding production Bangunjaya's Posyandu Cigudeg District Bogor.

This research is a quasi-experiment studies is a study by conducting experiments. The research samples were 30 nursing mothers, with 15 people as controls and 15 people others as treatments. Data collection tools in this study is the observation sheet form.

On the based changes in breastfeeding production to the intervention and control groups in get the p-value  $0.009 < \alpha (0.05)$ , then  $H_0$  is rejected, it means that there is a massage effect of oxytocin on breastfeeding production in Bangunjaya,s Posyandu Cigudeg District Bogor.

Keywords: Oxytocin Massage, breast feeding production.

## INTRODUCTION

According to the Indonesian Health Demographic Survey (SDKI) the infant mortality rate (IMR) is also still high, 32 per 1,000 live births. That number only dropped slightly from the 2007 IDHS IDB, which 34 per 1,000 live births (IDHS, 2012). Currently around 40% of under-five deaths occur in the first month of the baby's life, with breastfeeding reducing 22% of infant deaths under 28 days, so that infant and under-five deaths can be prevented through early exclusive breastfeeding from the time the baby is born early in life.

At present, the number of mothers giving exclusive breastfeeding to their babies until the age of 6 months is still low, which is less than 2% of the total number of women giving birth. Not all postpartum mothers directly express breast milk because milk expenditure is a very complex interaction between mechanical stimulation, nerves and various hormones that affect oxytocin release. ASI expenditure can be influenced by two factors, namely production and expenditure. ASI production is influenced by the hormone prolactin while

expenditure is influenced by the hormone oxytocin.

Massage or stimulation of the spine, the neurotransmitter will stimulate the medulla oblongata directly sending messages to the hypothalamus in the hypofise posterior to release oxytocin, causing the breasts to secrete milk. Oxytocin massage is one solution to overcome the smooth production of breast milk.

The purpose of this study was to determine the effect of oxytocin massage on breast milk production in breastfeeding mothers in the Posyandu of Bangunjaya Village, Cigudeg District, Bogor Regency

## RESEARCH METHODS

This type of research is a quasy experimental study, which is a study by conducting an experiment, which aims to find out the symptoms or effects that arise, as a result of the existence of certain treatments or experiments. The design of this study is to use a Non randomized pretest posttest control group design in this design involving two

subjects, one given treatment (experimental group) and those not given anything (control group).

The study was conducted at the Posyandu of Bangunjaya Village, Cigudeg District, Bogor Regency on June 25 to March 10, 2016. The population in this study was 30 mothers breastfeeding on the 10th day to the 17th day. By taking the total sampling technique of determining the sample by taking all members of the population as a sample so that the sample in this study were 30 mothers breastfeeding the 10th day to the 17th day, with 15 people as controls and 15 others as treatments.

The variables of this study consisted of oxytocin massage and milk production. Data processing and data analysis using computer program SPSS for Windows 20 series. Bivariate data analysis is analyzing milk production before and after oxytocin massage in the intervention group of breastfeeding mothers, analyzing milk production on the 10th day and 17th day in the mother control group breastfeeding, and analyze the effect of oxytocin massage on milk production in the intervention and control groups.

## RESEARCH RESULT

Characteristics of the general description and location of the study, this research was carried out in the Posyandu of Bangunjaya Village, Cigudeg District, Bogor Regency.

Distribution of Characteristics Frequency Responded based on the age of postpartum mothers in Posyandu, Bangunjaya Village, Cigudeg Sub-District, Bogor Regency, showed the number of respondents grew between 20-29 years for groups supporting 12 people (80%) and for groups controlled by 13 people (87%).

Distribution of Characteristic Frequency Responded based on Education in Posyandu Desa Bangunjaya, Subdistrict of Cigudeg, Bogor Regency. shows that most of the respondents' education is junior high school (SMP) for the intervention group of 8 people

(53.6%) and for the control group of 9 people (60%).

Distribution of Characteristic Frequency Responded based on Work in Posyandu Desa Bangunjaya, Subdistrict of Cigudeg, Bogor Regency shows that the biggest respondents' jobs are IRT for groups that intervene 10 people (67%) and for control groups only 9 people (60%).

The results showed parity or the majority of children were primipara for the comparison group of 13 people (87%) and for the control group won 12 people (80%).

Breast milk production before and after oxytocin massage in the intervention group in the Posyandu area of Bangunjaya Village, Cigudeg District, Bogor Regency showed the results of statistical tests obtained  $p$ -value = 0.02 ( $p$ -value <0.05) -0.47 after the respondent was given a massage oxytocin and the increase was approved using the Wilcoxon test which collects anything that supports improvement in safety ( $p$ -value <0.02). To accept this hypothesis the Wilcoxon test was used because the production of breast milk before and after completing was not normally distributed ( $p$ -value <0.05). The results showed what is meant by oxytocin massage on milk production in the intervention group with a  $p$ -value = 0.02 ( $p$ -value <0.05).

The production of breast milk before and after the oxytocin massage in the control group in the Posyandu of Bangunjaya Village, Cigudeg District, Bogor Regency showed that the statistical test results obtained  $p$ -value = 0.564 ( $p$ -value > 0.05) showed how to increase milk production by - 0.07 in 17th day and the Improvement was approved using the collected Wilcoxon test for which no improvement was given ( $p$ -value = 0.564). To test this hypothesis the Wilcoxon test is used because the production of breast milk on the 10th day and 17th day has an abnormal distribution ( $p$ -value <0.05). The results showed that there was no interaction of oxytocin massage on milk production in the

control group with a p-value = 0.564 (p-value > 0.05).

The Effect of Oxytocin Massage on Breast Milk Production in the intervention and control group in the Posyandu of Bangunjaya Village, Cigudeg District, Bogor Regency, the results of the statistical test obtained a p-value of 0.009 (p-value <0.05). This result also shows that the average milk production after being given oxytocin therapy in the intervention group was 19 while the average milk production on the 17th day in the control group was 12, this shows an average number of 7 in the group given massage therapy oxytocin with a group not given oxytocin massage therapy. The results showed what is meant by oxytocin massage on milk production in the intervention and control group on the 17th day with a p-value = 0.009 (p-value <0.05).

## DISCUSSION

A. Production of breast milk before and after doing oxytocin massage at the Intervention Group in the Posyandu, Bangunjaya Village, Cigudeg District, Bogor Regency.

Breast milk was 0.47 after postpartum mothers were given oxytocin massage therapy and the increase was after using the Wilcoxon test which collected funds to support the increase (p-value = 0.02). To accept this hypothesis the Wilcoxon test was used because both before and after the administration was not normally distributed (p-value <0.05). Oxytocin massage is carried out for 15 minutes at least once a day to reflex the oxytocin or the reflex is let down namely the stimulation of baby sucking through nerve fibers, stimulating the back of the pituitary to secrete the hormone oxytocin into the blood. Oxytocin causes myoepithelial cells that alter alveoli and ductuli to contract, so that milk flows from alveoli to ductuli to sinuses and nipples. (3) This result is also supported by Suryani's study (2012) which was collected on research on the combination of oxytocin on

breast milk production in postpartum mothers in the Klaten Regency region with indicators of infants equipped with additional bodies, infant BAK, and breastfeeding infants with a p-value of 0.001. (21)

b. The 10th and 17th days of ASI production in the Control group was at the Posyandu of Bangunjaya Village, Cigudeg District, Bogor Regency

The results of this study indicate that there was an increase in breast milk production of -0.07 on the 17th day and the increase was approved using the collected Wilcoxon test which did not add to the sponsored increase (p-value = 0.564). To test this hypothesis the Wilcoxon test is used because the production of breast milk on the 10th day and 17th day is not normally distributed (p-value <0.05). Assessment of milk production can be seen from several indicators such as signs of adequacy of breast milk in infants that is not losing weight more than 10% in the first week. The baby's weight will increase again and weigh the same as the birth weight on the 10th day. Furthermore, the baby's weight will increase 200-250 grams per week. (15) The results of research conducted by Hartini (2014) at the Kasihan II Yogyakarta Health Center on the Relationship of Mother's Education to ASI Production obtained p-value = 0.003 (p-value <0.05). These results state that there is a relationship between the level of mother's education with breast milk production. The higher the level of education, the higher the milk production. (23) For respondents in this study, the majority of education levels were junior high. The importance of education level to the production of breast milk.

B. The Effect of Oxytocin Massage on Breast Milk Production in the Intervention and

Control Group in the Posyandu of Bangunjaya Village, Cigudeg District, Bogor Regency

Based on research conducted shows the average production of breast milk after oxytocin massage therapy in the intervention group of -0.47 while the average production of breast milk on the 17th day in the control group of -0.07 this proved to represent an average effect the production of breast milk in the group given oxytocin massage therapy with the group not given oxytocin massage therapy. After the Wilcoxon Test was performed, the p-value of 0.009 was obtained because the p-value <  $\alpha$  (0.05), so  $H_0$  was rejected which has the meaning as an oxytocin trigger for breastmilk production in Posyandu, Bangunjaya Village, Cigudeg District, Bogor Regency. Oxytocin massage is one solution to overcome the smooth production of breast milk. Oxytocin massage is massage along the spine (vertebra) to the costae bone, which must be handled and followed by the hormones prolactin and oxytocin (Yohmi & Roesli, 2009). Automatic exit. (3) In accordance with the results of research conducted by Surya (2014) on Oxytocin Massage to Accelerate Breast Milk Production in Post-normal Normal Mothers In Sono Hamlet, Ketanen Village, Panceng Gresik District in 2014, a p-value = 0,000 (p-value < 0.05) the results expressed as oxytocin massage have a significant impact on milk production. (25)

## CONCLUSION

1. There is a change in milk production in postpartum mothers day 17 with a p-value = 0.02 (p-value < 0.05) after a meaningful intervention related to oxytocin massage on milk production.
2. There was no change in ASI production in postpartum mothers day 17 with p-value = 0.564 (p-value > 0.05) in the control groups

which meant there was no combination of oxytocin massage on milk production.

3. From the statistical test results obtained p-value = 0.009 so that it can be denied is associated with oxytocin massage on milk production in the intervention and control groups with a p-value = 0.009 (p-value < 0.05) then  $H_0$  is rejected.

## SUGGESTION

Midwives can provide counseling on public health about midwifery care for postpartum mothers and postpartum visits to read danger signs or problems that mothers need after giving birth.

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