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Impact of breast crawl to breast milk production on puerperium mothers in rose room of abdoel wahab sjahranie regional public hospital of samarinda in 2014.

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Abstract:- Factors that affect the low provision of exclusive Breast Milk, one of them is caused by fact that not all babies got Breast Crawl yet. Dealing with Breast Crawl having not performed, it can lead problem to breastfeeding process also Breast Milk production on mother. The provision of Breast Milk is not only good for mother and baby, but also useful for family and country (Roesli, 2012). The research aims to find out the impact of Breast Crawl to Breast Milk production on puerperium mother in Rose Room of Abdoel Wahab Sjahranie Regional Public Hospital (RSUD AWS) of Samarinda in 2014. The research was a *quantitative* research characterized by *analytic descriptive* with *cross sectional* research design. Population of the research were puerperium mothers in Rose Room of Abdoel Wahab Sjahranie Regional Public Hospital of Samarinda. The samples taken by *non probability sampling* was *purposive sampling.* Data analysis technic used univariate analysis by frequency distribution bivariate analysis by statistics test *difference test between two proportions* with level of confidence (CI 95%) also α = 5%. Result of the research is that there was significant impact of Breast Crawl to Breast Milk production, which resulted of z test obtained Zcalculation value for 3,14627 > than $Z_{\frac{\alpha}{2}}$ value for 1,96. Based on result of the research, the researchers concluded that there was a significant impact of Breast Crawl to Breast Milk production. Suggestion to husbands, families also health workers to be able to do Breast Crawl soon after baby born for fully one hour, hence Breast Milk production is smooth, that indeed besides giving advantages both for mothers and their babies.

Keywords:- Breast Crawl, Breast Milk production, Lactation, Puerperium Mothers

I. BACKGROUND

Breastfeeding is a physiological process to give nutrition optimally. There is nothing worthier in a child's life than getting qualified nutrition since the beginning of his life (IDAI, 2010). Good nutrition is one of determiners for child growth either physic, mentality, spirituality, or intelligence, as 80% child brain starts in womb until 3 years old (Mediakom, 2009).

The scope of Breast Milk in Indonesia does not reach the expected number yet that is for 80%. Based on Sosunaeco (Social Survey of National Economy) 2010 data, there is just 33,6% of 0-6 months old babies who got exclusive Breast Milk. Even Basic Health Research (Bahre) 2010 stated there is only 15,3% less than 6 months old babies getting exclusive Breast Milk. (Natiawiji, 2013).

In reality, the exclusive breastfeeding for six months is uneasy as the result of various obstacles that they face. Many mothers have difficulties to breastfeed their babies. Insufficient Breast Milk production is the mothers' main reason for not giving exclusive Breast Milk. Although many mothers feel their Breast Milk is lack, it is very few (2-5%) who are biologically indeed lack of Breast Milk production. For the rest 95-98% mothers can produce sufficient Breast Milk for their babies (Roesli,2012).

Breast Crawl is a natural process to restore baby to breastfeed that is by giving chance to baby to look for and suck Breast Milk by themselves within the first one hour at the beginning of their lives. Thus, actually human babies are similar to other mammal babies which have ability to breastfeed by themselves. It occurs soon after they are born, baby is allowed to contact with their mother's skin at least for one hour, to guarantee the occurrence of correct breastfeeding process. Having not performed Breast Crawl, it can cause problem to breastfeeding process also Breast Milk production on mother (Roesli,2012).

Breast Crawl takes role in achievements of 2 Millenium Development Goals (MDGs) purposes since it can increase the success of six months breastfeeding and length of breastfeeding. The goals that can be achieved are: (1) Helps to decrease poverty. Each babies needs about Rp 3,3 million in 6 months. The cost is > 100% more than labor income that is about Rp 500.000/months, (2) Helps to decrease starving, for 2 years old children, 500cc of their mother Breast Milk can fulfill calories need 31%, protein 38%, vitamin A 45%, and vitamin C 95%. Breast Milk still fulfills 70% calories need for 6-8 months babies, 55% for 9-11 months babies, and 40% for 12-23 months babies, (3) Helps to decrease toddlers mortality number, about 40% toddlers

mortality occurs at newborn baby age (below 1 month). Based on World Health Report newborn babies mortality number in Indonesia, 20/1000 alive birth, toddler mortality 46/1000 alive birth (Roesli, 2012).

Breastfeeding should be done immediately after baby is newly born or now called as Breast Crawl. It is very important whether baby will get sufficient Breast Milk or not. It is based on the role of Breast Milk maker hormone, for instance prolactin hormone in mother's blood circulation that will decrease after one hour childbirth caused by the loss of the placenta.

As an effort to maintain prolactin, the baby suck will give stimulation on hypophysis to release oxytocin hormone. It works to stimulate viscelar to squeeze Breast Milk out in alveoli, lobus also ductus which contain Breast Milk released through nipples.

If the baby does not suck nipples within one hour after childbirth, prolactin hormone will decrease and will be difficult to stimulate prolactin, then new Breast Milk will come out on the third day or more. It forces midwife to give substitutive food for breastfeeding since the baby does not get sufficient breastfeeding, and will make the baby fussy (Kristiyanasari,2011).

From introduction study performed by the researchers on 5 puerperium mothers having childbirth and treated in Rose Room puerperium of RSUD AWS, it is stated that there are 2 of 5 mothers on their childbirth, Breast Crawl performed for the first 1 hour after childbirth, 3 of them did not perform Breast Crawl. Breast Milk production produced by mothers' both breasts that Breast Crawl performed is much more compared to those without performing Breast Crawl. The conclusion is that the babies getting Breast Crawl are smarter in breastfeeding compared to babies not getting Breast Crawl, eventually the babies are more frequently fussy and the mothers giving other drinks besides Breast Milk to their babies such as mineral water, formula milk and so on. Based on the data above the researchers were interested to analyze the impact of Breast Crawl to Breast Milk production on puerperium mother in Rose Room of Abdoel Wahab Sjahranie Regional Public Hospital of Samarinda.

II. RESEARCH METHOD

The aim of the research is to find out and analyze the impact of Breast Crawl to Breast Milk production on puerperium mothers in Rose Room of Abdoel Wahab Sjahranie Regional Public Hospital of Samarinda. The research used *experimental* research that is the researchers do experiment or treatment to their independent variable, then estimate the result or effect of the experiment to dependent variable. The experimental research aims to test causalities hypothesis by doing intervention (Notoatmodjo, 2005).

The research design was pre experiment (pre experiment with *The Static Group Comparison or Intact Group Comparison* design*)*. On the design there are two treatment groups or experiment groups and one control group. In both groups there are different treatments, experiment group is given Breast Crawl treatment according to SOP. In control group it is given Breast Crawl treatment that is not according to SOP.

In the research the researchers did treatments such as performing Breast Crawl treatment according to SOP to the subject of the research intentionally well-planned, then estimated the effect.

Experiment		Post Test
Kelompok Eksperiment	X	O_2
Kelompok Kontrol		$O_{2'}$

Description :

X = Intervention : Breast Crawl treatment given for 1 hour

O_2 = Post-test : After Breast Crawl treatment according to SOP given in experiment group, then in the determined time it will be performed estimation on examined variable.

$O_{2'}$ = Post-test : After Breast Crawl treatment not according to SOP given on control group (no treatment group) performed at certain time (the length of time is same as treatment group).

Sampling technic used in the research was non random sampling technic (*non probability*) that was *purposive sampling*. *Purposive Sampling* is a sampling technic based on particular consideration from the researcher that is considered to require information for his research. In the research, the samples consisted of 20 respondents divided into two groups. The first group (1) consisted of 10 respondents who were given Breast Crawl treatment according to SOP, while the second group (2) consisted of 10 respondents who were given Breast Crawl treatment not according to SOP. D*ependent variable* (bound) is Breast Milk production and *independent variable* (free) is Breast Crawl.

In the research the instrument of data collection used was questionnaire. Method of questionnaire used is in the form of checklist consisting of some questions that if the mothers only give Breast Milk, the checklist is answered by continuing to the next questions, but if the mothers not only give Breast Milk to their

babies the questions on checklist are not to be continued. Checklist questions are to answer the questions of the research, whether the mothers' Breast Milk production are smooth or not.

Data analysis was performed by univariate and bivariate. For univariate data analysis used frequency distribution, while bivariate analysis used *difference* test *between two proportions* much known as Z test.

Different proportions of hypothesis test of two independent samples were performed on two sample groups taken from different populations. Both sample groups did not have relation, thus it gave possibility that the amount of taken samples of both groups was different.

III. RESULT OF THE RESEARCH

a. Description of Breast Milk Production

1) Treatment Group (Breast Crawl performed according to SOP)

Table 4.1 Respondents Frequency Distribution Based on Breast Milk Production given Breast Crawl treatment according to SOP on Puerperium Mothers at RSUD Abdoel Wahab Sjahranie Samarinda 2014

No	Breast Milk Production	Frequency	Percentage
1	Smooth	9	90 %
2	Unsmooth	1	10 %
Amount		**10**	**100 %**

Based on table 4.1 above from 10 respondents given Breast Crawl treatment according to SOP there were 9 respondents (90%), their Breast Milk production were smooth and 1 respondent (10 %), her Breast Milk production was unsmooth.

2) Control Group (Breast Crawl performed is not according to SOP)

Table 4.2 Respondents Frequency Distribution Based on Breast Milk Production given Breast Crawl treatment which was not according to SOP on Puerperium Mothers at RSUD Abdoel Wahab Sjahranie Samarinda 2014

No	Breast Milk Production	Frequency	Percentage
1	Smooth	2	20 %
2	Unsmooth	8	80 %
Amount		**10**	**100 %**

Based on table 4.2 above from 10 respondents were given Breast Crawl treatment not according to SOP there were 2 respondents (20%), their Breast Milk production were smooth and 8 respondents (80%) their Breast Milk production were unsmooth.

b. Description of Breast Crawl

Table 4.3 Respondent Frequency Distribution Based on Breast Crawl treatment on puerperium mothers at RSUD Abdoel Wahab Sjahranie Samarinda 2014

No.	Breast Crawl	Frequency	Percentage
1	According to SOP	10	50 %
2	Not According to SOP	10	50 %
Amount		**20**	**100 %**

Based on table 4.3 above from 20 respondents there were 10 respondents (50%) whose Breast Crawl performed according to SOP and 10 respondents (50%) whose IMD performed not according to SOP.

2. Bivariate Analysis

Bivariate Analysis is used to find out whether there is significant impact of Breast Crawl to Breast Milk production on puerperium mothers, thus performed statistics test by using difference test between two proportions or z test with level of confidence 95% and error rate 0,05.

Table 4.4 Impact of Breast Crawl to Breast Milk Production on Puerperium Mothers at RSUD Abdoel Wahab

Sjahranie Samarinda 2014

Breast Crawl	Breast Milk Production		Amount	Z_{hitung}	$Z\frac{\alpha}{2}$
	Smooth	Unsmooth			
According to SOP	9 (90%)	1 (10%)	10 (100%)	3,1462	1,96
Not According to SOP	2 (20%)	8 (80%)	10 (100%)		
Amount	10 (100%)	10 (100%)	20 (100%)		

Based on result of the research from 20 respondents there were 10 respondents performing Breast Crawl according to SOP there were 9 respondents (90%) their Breast Milk production were smooth and only 1 respondent (10%) her Breast Milk production was unsmooth. And from 10 respondents performing Breast Crawl not according to SOP there were 2 respondents (20%) their Breast Milk production were smooth and there were 8 respondents (80%) their Breast Milk production were unsmooth.

The result of z test obtained Zcalculation value for 3,14627 > than $Z\frac{\alpha}{2}$ value for 1,96. Therefore, it can be concluded that there is significant impact of Breast Crawl to Breast Milk Production.

IV. DISCUSSION

Based on result of the research from 20 respondents there were 10 respondents performed Breast Crawl not according to SOP, there were 8 respondents (80%) their Breast Milk production were unsmooth. It was caused by prolactin hormone in mothers' blood circulation decreasing after one hour childbirth following the loss of placenta.

As an effort to maintain prolactin, the baby suck will give stimulation on hypophysis to release oxytocin hormone. It works to stimulate viscelar to squeeze Breast Milk out in alveoli, lobus also ductus which contain Breast Milk released through nipples.

If the baby does not suck nipples within one hour after childbirth prolactin hormone will decrease and will be difficult to stimulate prolactin hence new Breast Milk will come out on the third day or more. It forces midwife to give substitute food for breastfeeding since the baby does not get sufficient breastfeeding and it will make the baby fussy (Kristiyanasari,2011).

Based on result of the research, it was also obtained that from 20 respondents with implementation of Breast Crawl was not according to SOP there were 10 respondents (50%). It was caused by some factors among others, one of them was worker anxiety that the baby would experience hypothermia. A mother who gives birth is too tired since childbirth process, therefore she refuses Breast Crawl; maternity room is engaged, and so on. The mothers who performed Breast Crawl, besides it affects to Breast Milk production, also affects to uterus contraction stimulation and decreases post-childbirth bleeding risk (APN, 2008).

Result of research test shows there is significant impact of Breast Crawl to Breast Milk production by the result of statistics test Zcalculation for 3,14627 > than $Z\frac{\alpha}{2}$ value for 1,96.

Pregnancy and childbirth events are series of human life cyclus. In pregnancy, a mother must maintain fetus condition. One of the ways is by consuming healthy food with high content of nutrition, not only for herself, the nutrition is also for the baby she carries. As well as a child in womb, nutrition is also needed when the baby is born later. Breastfeeding is a physiological process for giving nutrition optimally (Yuliarti, 2010). The content of unique nutrition causes Breast Milk to have strength point that cannot be imitated by any formula milk (IDAI, 2010).

For all these times childbirth helper always separates baby from their mother soon after their birth, to be cleaned, weighed, distinguished, given clothes. In fact the process is a very disturbing natural process of baby to breastfeed. (Roesli, 2012). While in the opinion of General Director Mother-Child Nutrition and Health Development Ministry of Health Slamet Riyadi Yowono states that besides mother and baby issues, there are still some factors that affect the low of exclusive breastfeeding, one of them is caused by the fact that not all babies get Breast Crawl (Natiawiji, 2013). According to Fika and Syafiq's research, medical journal Trisakti University shows a baby who was given chance of Breast Crawl, the result is 8 times more successful in breastfeeding (Roesli, 2012). Another research also proves that Breast Crawl will help in the occurrence of breastfeeding, Breast Milk production later and the length of breastfeeding (IDAI, 2010).

Based on the supportive result of the research, the researchers assumed that respondents given Breast Crawl treatment, their Breast Milk production becomes smooth. It is caused by the baby suck is able to stimulate produced hormone that influences smoothness of Breast Milk production, those are prolactin and oxytocin

hormones. The evidences that the mothers Breast Milk production are smooth is by assessing baby's behavior, as: Babies Urination frequency per 24 hours at least 6 times. Urine color is not pale yellow. Babies Defecation frequency per 24 hours 2-5 times, yellowish colored. Mothers' breasts will seem deflated and soft after breastfeeding babies. Babies will sleep well when they are satisfied with breastfeeds. They will wake up and cry within 2-3 hours later. On the other hand, respondents who performed Breast Crawl not according to SOP, their Breast Milk production are unsmooth. It is caused by the mother refuses Breast Crawl performed since exhausted postchildbirth process, also anxiety, and lack of attention of health workers to Breast Crawl action.
In this research it was also found respondents given Breast Crawl treatment according to SOP but their Breast Milk production were unsmooth caused by psychological reason and stamina that was not stable in the post-childbirth. In addition, there were respondents given Breast Crawl treatment not according to SOP but their Breast Milk production was still smooth which one of them was influenced by Breast Milk maker hormones, those are prolactin and oxytocin still working well although there is no baby suck before.

The success of breastfeeding can be manifested if it is supported by the role and implementations of various parties supporting it. Some factors affecting Breast Milk production that indeed can affect the succeed of Breast Milk provision besides breastfeeding factor is namely the implementation of Breast Crawl which can also be influenced by mother's psychological and physical factors. That is why, it is expected for health workers knowledge and active participation to be able to give motivation and real action for puerperium mothers in order to make their Breast Milk production become smooth and they are able to breastfeed their babies well and correctly.

V. CONCLUSION

1. Description of Breast Crawl on puerperium mothers in Rose Room of RSUD AWS of Samarinda was according to SOP (50 %) and not according to SOP (50 %).
2. Description of Breast Milk production on puerperium mothers in Rose Room of RSUD AWS on mothers who performed Breast Crawl according to SOP, most of their Breast Milk production were smooth and on mothers whom performed Breast Crawl not according to SOP, most their Breast Milk production were unsmooth.
3. There is a significant impact of Breast Crawl to Breast Milk production on puerperium mothers in Rose Room of RSUD AWS of Samarinda in 2014.

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