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#### **SPEOS (ENDORPHINS AND OXYTOCIN MASSAGE STIMULATION AND SUGGESTIVE PROVISION) REDUCED THE DURATION OF BREAST MILK PRODUCTION AMONG THE PUERPERAL WOMEN IN MIDWIFE PRIVATE PRACTITIONERS OF CIREBON DISTRICT**

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Breastfeeding in the first days after birth can reduce the risk of neonatal mortality up to 45%. The problem is early production of breast milk is one reason for not breastfeeding a baby that in turn it will be bad for the baby's life. This can be caused by hormonal, psychological and confidence factors. SPEOS method is an alternative way of breastfeeding problems in terms of breast milk production. By this study, the effectiveness of SPEOS method in puerperal to breast milk production were observed. This study employed an experimental study with quasi experimental design performed with providing a treatment or intervention to the subjects. A total of 22 postpartum women were obtained as a treatment group as well as the control group with 22 postpartum women. The sampling technique used consecutive sampling in which postpartum mothers who came in sequence and met the selection criteria were included in the study to meet the number of subject requirement. The duration of breast milk production (in hours) was recorded in a daily check-list until the third day after massage. We noticed that SPEOS intervention increased the number of puerperal women who experienced breast milk production 24 hours after treatment. Without SPEOS supplementation, the majority of respondents succeed to breast milk production 72 hours after the respondents had delivery. SPEOS method includes three main aspects in the breastfeeding milk production which are the hormonal and neural stimulants, psychological factors, and the own women faith factors. Through this method, the three aspects can be achieved in order to provide the puerperal women to the shorten breast milk production after had delivery. Providing the breast milk production in the first day may reduce the risk of neonatal mortality.

**Keywords:** SPEOS Method, Endorphins and Oxytocin Massage Stimulation and Suggestive Provision, Breast Milk Production

### 1. INTRODUCTION

Breast milk is the most important nutrition for the baby mainly at the first phases in time of the baby life. The children who obtained exclusive breast feedings are more possible 14 times to survive during six months in first phase of baby life (Astutik, 2013). Breastfeeding in the first day after baby birth can decrease the death risk of early baby born until 45% (Candra, 2013). Mgongo and colleagues in 2013 found that in Tanzania, Kilimanjaro, an exclusive breastfeeding (EBF) effective to the baby death 13% to 15% (Melina, 2013).

In the 65<sup>th</sup> World Health Conference to WHO members have established an expectation of 2025 where about 50% of babies who are under six months will obtain exclusive breastfeeding. In South East Asia region, there are no different of exclusive breastfeeding achievements as 46% in India, 34% in Philippines, 27% in Vietnam and about 24% in Indonesia.

The attaining of exclusive breastfeeding until the first months in Indonesia has fluctuated during four years lately. According to the Susenas Data, the attaining exclusive breastfeeding milk in Indonesia reached to 34,3% in 2009, but slightly decrease to 33,6% in 2010, and then increased to 42% in 2011, but lately in 2012 the percentage deeply collapsed to 27%.

The government regulation number 33 in 2012 states to fulfill the babies rights to obtain an exclusive breastfeeding to the best nutrition during the first six months without addition and or changing with the another diets, and to protect the women exclusive breastfeeding to their babies. However, the government is more likely failed for the achievements since the failure to control the uses of formula milk and the other baby products and does not support breastfeeding in work place and other public. The failures of the breastfeeding process are often caused by some factors such as the own women's factors and her own psychology.

A decreasing of endorphin and oxytocin level is known as one factor causes the problem of breast milk production in the day after baby birth (Perinasia, 2010). The low level of these hormones also influences woman psychology factors that related to lactation process. It shows that stimulation effort related to an increasing of endorphin and oxytocin is important to breast milk production (Purnama, 2009).

A study conducted in 2010 revealed that a combination of oxytocin massage and Marmet technique for significantly increase breast milk production among the puerperal woman who experienced gibbosity in their breasts. The study also highlighted a greater opportunity reached to 11.5 times to have smooth breast milk production after the treatment. We also noted an endorphin massage that might be used to increase the breast milk production with an affectivity to reduce the pains after delivering. Moreover, another research shows that an endorphin massage may relate to a decreasing level of postpartum primiparas. The study is aimed to find out the affectivity of a combination method between the endorphin and oxytocin massage, known as "SPEOS" (Endorphin and Oxytocin Massage Stimulation and Suggestive Provision) method, regarding to the breast milk production. The research covered an area in Cirebon, one of towns in West Java Indonesia, that has attained 42,35% of population providing an exclusive breastfeeding to their baby in the first 6 months.

## **2. RESEARCH METHODOLOGY**

### **2.1. Design and Samples**

This study employed an experimental study with quasi experimental design performed with providing a treatment or intervention to the subjects. Intervention was performed by combining endorphins and oxytocin massage, known as SPEOS method. A practitioner provided the massage around the back parallel to the breast of the respondents, accompanied by positive suggestions. No treatment was provided to the respondents at control group.

A total of 22 postpartum women were obtained as a treatment group as well as the control group with 22 postpartum women. The sampling technique used consecutive sampling in which postpartum mothers who came in sequence and met the selection criteria were included in the study to meet the number of subject requirement. The sample selection used inclusion and exclusion criteria. The respondents should be the primiparous women at postpartum in first day and have

breast milk production problem. The respondents have a baby with height more than 2.500 gr, and the baby will obtain breast milk only during the research. The postpartum women who smoke are excluded. The mother and the baby should be in good condition.

**2.2. Measurement**

The data in this research was the primary data taken directly from the respondents (post-partum women) in Midwife Private Practitioners. The duration of breast milk production (in hours) was recorded in a daily check-list until the third day after massage. The respondents noted the time of breast milk discharges.

**2.3. Data Analysis**

Shapiro Will test was used to obtain data distribution. Homogeneity test was conducted to examine the pain intensity before treatment between the two groups. To find out the difference level, parametric data was employed to analyze the normal distributed data whilst the non-parametric test was performed for non-normal distributed data.

**3. RESULTS AND DISCUSSIONS**

We noticed that SPEOS intervention increased the number of puerperal women who experienced breast milk production 24 hours after treatment. As shown in Table 1, the majority of experimental groups are able to produce breast milk. In another hand, there is no respondent in control group affords to breast milk production. Without SPEOS supplementation, the majority of respondents succeed to breast milk production 72 hours after the respondents had delivery.

Table 1. The counted number of puerperal woman who produced breast milk in 24, 48, and 72 hours after delivery with and without intervention in Independently Practical Midwifery (BPM) Cirebon Area, West Java, at November 2013 – January 2014 (N=44)

Parameters	SPEOS Intervention			
	Yes		No	
	N	%	N	%
Breast Milk Production				
24 hours	16	72,2	0	0
48 hours	4	18,2	6	27,3
72 hours	2	9,1	16	72,2

We notified that the shorten duration of breast milk production in among peurperal women after SPEOS intervention. Hormonal and neural factors play the role of breast milk production. The breastfeeding milk production involves oxytocin and endorphin hormone (Mayasara, 2013).

Table 2. The breast milk production (in hours) among peurperal women with and without SPEO intervention in Independently Practical Midwifery (BPM) Cirebon Area, West Java, at November 2013 – January 2014 (N=44)

Group	Duration of breast milk production (hours)		p value
	Range	Mean ± SD	
Control (N=22)	48 to 72	65.45±10.94	0,000
Treatment (N=22)	24 to 72	32.73±15.79	

SPEOS intervention among the sampling population contributed significantly to the decreasing duration of breast milk production from 65.45 ( $\pm 10.94$ ) hours to 32.73 ( $\pm 15.79$ ) hours at 0.001 difference level. SPEOS method includes three main aspects in the breastfeeding milk production which are the hormonal and neural stimulants, psychological factors, and the own women faith factors. Through this method, the three aspects can be achieved in order to provide the puerperal women to the shorten breast milk production after had delivery. Providing the breast milk production in the first day may reduce the risk of neonatal mortality.

#### 4. CONCLUSIONS AND SUGGESTIONS

SPEOS Method (Endorphins and Oxytocin Massage Stimulation and Suggestive Provision) is effectively to help the fluency of breast milk production for puerperal women. By the data, we recommended SPEOS (Endorphins and Oxytocin Massage Stimulation and Suggestive Provision) to reduce the duration of breast milk production among the puerperal women. This research should be improved and completed perfectly by conducting clinical experiments.

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