



Breast Care and Acupuncture Points GB 21: Boost Up Breast Milk Production

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Abstract

Breast feeding is recognized and highly recommended by the World Health Organization (WHO) as optimal feeding for all infants. However, some of the obstacles experienced by postpartum mothers at the beginning of breastfeeding can cause ineffective breastfeeding. One of the causes of the lack of fulfillment of breast milk in infants is less milk production on the first day after birth. The lack of milk production can cause is that it is difficult for the baby to gain weight. Some alternative efforts that can be done are to stimulate prolactin and oxytocin hormones in postpartum mothers by providing Breast Care and GB21 point acupuncture. This study aimed to determine the effectiveness of breast care and GB 21 acupuncture in postpartum mothers in the first ten days of producing breast milk. The research design used was a quasi-experimental design with Pretest-Posttest with Control Group. The number of samples studied was 90 respondents. Each group was breast care and 30 respondents. The intervention group was treated with acupuncture point GB 21 and 30 control patients. This research was conducted in February 2021 in Muara Enim Regency. The data were analyzed using the T-test and Anova test to see the effect of Breast Care and GB21 point acupuncture on breast milk production in postpartum mothers. The Breast Care action study results significantly increased the baby's weight compared to the control group, as much as six times, while the administration of GB 21 acupuncture was twice that of the control group. This study concludes that Breast Care is one of the therapies that can increase breast milk production.

Keywords: Acupuncture GB 21; Breast Care; Breast Milk Production; Post-Partum

Abbreviations: WHO: World Health Organization; AAP: Academy of Pediatrics; ABM: Academy of Breastfeeding Medicine; IDI: Indonesian Doctors Association; IMR: Infant Mortality Rate.

Introduction

The World Health Organization (WHO), a world organization, recommends exclusive breastfeeding for six months in the baby's first life and continues with complementary foods until the age of 2 years. The American Academy of Pediatrics (AAP), the Academy of Breastfeeding Medicine (ABM), and the Indonesian Doctors Association (IDI) recommend the same thing about exclusive

breastfeeding for at least six months [1].

The low achievement of exclusive breastfeeding coverage is one factor that increases the Infant Mortality Rate (IMR) because, without exclusive breastfeeding, infants are more susceptible to various diseases that can increase morbidity and mortality rates [1,2]. Several factors that can affect the mother's milk production are stimulation of the breast muscles, the regularity of the child's sucking, the mother's condition such as the mother's emotional state and attitude, nutritional status, peace of mind and soul of the mother, breast care, lack of rest and drugs containing hormones [3,4].

Efforts can be made to overcome the above problems

as a form of anticipation of further complications from the problem of breast milk production. A treatment method is needed to facilitate effective non-pharmacological milk production using Breast Care techniques and GB21 point acupuncture. Breast Care is an effort to stimulate the hormone that produces breast milk as early as possible and plays a vital role in dealing with breastfeeding problems [5].

In addition to Breast Care, another way to increase breast milk production can also be done with acupuncture techniques or also called Traditional Chinese Medicine (PTC) or Traditional Chinese Acupuncture (ATC), namely by inserting needles into specific points on the body (acupoints) [6]. Acupuncture points or acupoints are a collection of various skin and muscle nerve endings that can be stimulated [7,8]. In acupuncture, breast milk production can be launched at a certain point, namely Jianjing (GB21) [7,9].

The research results conducted by Lenny Chandra [10] stated that this technique could provide comfort to the mother and a relaxed sensation and stimulate the hormones prolactin and oxytocin, which play a role in breast milk production [10] researchers are interested in conducting a study entitled "The Effect of Breast Care and GB21 Point Acupuncture on Breast Milk Production".

Methods

The research design used in this study was a Pretest-Posttest Control Group only design, which is a study that compares the condition of the target group between before

and after treatment. The sample in this study is part of the population studied and selected using a consecutive sampling technique, namely all postpartum mothers and their babies aged one day at the Puskesmas and maternity clinics in Muara Enim Regency who met the inclusion criteria. The inclusion criteria of the mother giving birth normally, the baby are one day old, there are no complications, no breast abnormalities, and the mother agrees to breastfeed her baby. The exclusion criteria were problems with inverted nipples, multiple births, indications not to breastfeed, for example, a history of Clindamycin injection in the past week.

The research protocol for mothers receiving breast care actions using the Breastcare SOP was adopted from the research of Ardhiyanti Muslima [2], every two times a day in the morning and evening for ten days. Mothers are asked to breastfeed their children as often as possible, at least every 2 hours. Babies were weighed every day until the tenth day.

The test used is the ANOVA test if the data distribution is normal or the Kruskal-Wallis test if the data is not normally distributed, and the comparison of the averages of two paired groups, namely the t-test if the data distribution is normal or the Wilcoxon test if the data is not normally distributed. To analyze the three groups using the One Way ANOVA test. Suppose there is a significant difference (p -value < 0.05), then the post hoc test is carried out to determine which group is significant through the Bonferroni test with a significance of 0.05.

Results and Discussion

Variable	Control n=30	Breast Care n=30	Acupunctur GB21 n=30
Age			
< 20 years	16 (53,3%)	4 (13,3%)	17 (56,7%)
20-35 years	13 (43,3%)	26 (86,7%)	13 (43,3%)
>35 years	1 (3,3%)	0 (0,0%)	0 (0,0%)
Education			
primary school	2 (6,7%)	0 (0,0%)	2 (6,7%)
Junior High School	7 (23,3 %)	0 (0,0%)	8 (26,7%)
High School	16 (53,3%)	14 (46,7%)	13 (43,3%)
Univesrity	5 (16,7%)	16 (53,3%)	7 (23,3%)
Work			
Work	8 (26,7%)	9 (30,0%)	5 (16,7%)
Doesn't work	22 (73,3%)	21 (70,0%)	25 (83,3%)
Breastfeeding Frequency			
< 8 x/day	0	0	0
8-12 x/day	30 (100%)	30 (100%)	30 (100%)
12 x/day	0	0	0

Table 1: Characteristics of Research Subjects.

Based on Table 1, it was found that the characteristics of postpartum mothers in each group according to age, education, occupation, and frequency of breastfeeding. Based on age, the control group mainly was aged <20 years (53.3%), the breast care group mainly was aged 20-35 years (86.7%), and the acupuncture group mainly was aged <20 years (56.7%).

The education level of the respondents was in the same presentation (53.3%) in the control group and the nursing care group, but there were differences in the level where the control group at the high school level and the breast care group at the PT level. In the acupuncture group, the highest number was in high school education (43.3%). The level of education will affect one's experience, so the higher the education one can do something, the better, and so is the motivation [11].

Working status of respondents Most of the respondents did not work in the three groups, which respectively obtained the control group, the breastfeeding group, and the acupuncture group (73.3%), (70.0%) and (83.3%). The largest acupuncture group was mothers who did not work. Working status for pregnant women makes mothers do not have time to do acupuncture and breast care? In contrast, mothers who do not work have more time to do activities related to knowledge, breast care, and acupuncture to do breast care and acupuncture at home compared to working mothers [12].

In each group, breastfeeding in infants was monitored as many as 8-12 times a day for ten days. This is to control the disturbing factors in this study.

Group	Pre test	Post test	P Value
Control			
Mean(SD)	3030,0	3097,0	0,075*
median	2985,0	3015,0	
Minimum	2600,0	2560	
Maximum	3900,0	3940	
Breast care			
Mean(SD)	3211,0	3363,3	0,003*
median	3200,0	3300	
Minimum	2500,0	2100	
Maximum	3900,0	4200	
Acupuncture			
Mean(SD)	3048,0	3178,3	0,000*
median	3000,0	3175	
Minimum	2650	2800	
Maximum	3600	3650	

Table 2: Baby's Weight in the Control Group, Breast Care and Acupuncture.

This study looks at the baby's weight as an indication of breast milk production in the mother in the first ten days. In table 3.2, it is found that the average baby weight in the control group increased by 67 grams, with a p-value of 0.075, which showed no significant difference from the first day to the tenth day.

In the breast care group, there was an increase in the average weight of the baby's belly after and before the procedure, which was 1 gram, after the study was 152.5

grams, the results of statistical tests were obtained (P-value 0.003), so it can be concluded that there is a difference in the baby's abdominal weight before and after breast care surgery performed on postpartum mothers.

There was a difference in average body weight in the acupuncture group before and after the procedure of 130.3 grams. The statistical tests (P-value 0.000) concluded that there was a significant difference in milk production before and after acupuncture was indicated by weight gain.

Day 10 weight (grams)	Control n=30	Breast Care n=30	Acupunctur GB 21 n=30	P value
Mean(SD)	67,0 (199,0)	152,3 (259,4)	130,3 (71,5)	0,000*
Median	0,0	135,0	150,0	
Minimum	-180	-600	0	
Maximum	700	700	150	
Mean Rank				

Table 3: Effect of Breast Care and GB21 point acupuncture on breast milk production.

Based on table 3.3, the average difference in body weight is obtained, the difference in body weight in the control group is 67.0 (199.0) grams, in the breast care group is 152.3 (259.4) grams, in the GB 21 acupuncture group, it is

130, 3 (71.5) grams. The statistical tests showed a significant difference in body weight after the study in the three groups (p-value 0.000).

Group	Group	Mann Whitney U	Z	P Value
Control	Breast care	228.5	-3.308	0,001*
Control	Acupuncture	199	-3.734	0,000*
Breast care	Acupuncture	367.5	-1.041	0,298*

Table 4: Analysis of the Difference in Body Weight with a Significant Effect in Each Group.

The analysis was continued to find out which group had a significant effect. The analysis results showed a significant effect in the control group with the breast care group (p-value 0.001). There was a significant effect in the control group with acupuncture (p-value 0.000). While in the breast care group with acupuncture, there was no significant effect (p-value 1.298).

In this study, the average difference in body weight, the difference in body weight in the control group was 67.0 (199.0) grams, in the breast care group was 152.3 (259.4) grams, in the GB 21 acupuncture group, it was 130.3 (71.5) grams. The statistical tests showed a significant difference in body weight after the study in the three groups (p-value 0.000). Further analysis found a significant effect on the control group with the breast care group (p-value 0.001), and there was a significant effect on the control group with acupuncture (p-value 0.000). While in the breast care group with acupuncture, there was no significant effect (p-value 0.298).

This follows the theory, which states that one of the signs that a baby is getting enough breast milk is that the baby has the same weight or above birth weight at ten days if there is enough milk, after breastfeeding, the baby will fall asleep/calm for 3-4 hours. Babies urinate more often, about eight times a day [13].

Babies who get breast milk will have good growth and development. This can be seen from the baby's weight gain and good brain intelligence. This study is in line with the study of Nugraha, et al. [6], which compared two groups who

were given health education about breast milk production and the provision of acupuncture. However, the results showed that giving acupressure therapy had a longer effect than health education [6]. Acupuncture therapy was stated to be statistically more effective for mothers to increase breast milk production. Therefore, it is recommended to use acupressure as an alternative treatment method to increase breastfeeding [8,14].

One of the factors that cause more milk production is because the mother feels relaxed. This can be caused by decreased acupressure levels [14,15]. However, this contradicts the research results by Machmudah [16] which states that the GB 21 acupuncture technique is not analytically effective for reducing the hormone cortisol [16]. Therefore, the use of GB 21 acupuncture and still needs to be studied more deeply to increase milk production.

In this study, the most effective therapy was breast care. Breast care provides stimulation of the breasts will affect the hypophysis to secrete the hormone progesterone and estrogen even better and the hormone oxytocin [5]. Breast milk production will be able to be maintained to meet the baby's needs if the mother performs Breast Care actions correctly and regularly so that the baby's weight can be maintained in normal conditions according to his age.

Another advantage of Breast Care is can be explained that mothers who do breast care therapy will not experience breast milk dams [17]. One of the movements in Breast Care is providing stimulation to the breast with a gentle massage towards the nipple, which can stimulate milk production

[6,7,18]. Gentle massage on the nipples can also prevent breast milk damming caused by a fat blockage in the milk flow [19]. Stimulation and smooth flow of breast milk can condition the release of milk production smoothly so that babies can breastfeed optimally.

In the previous research, postpartum mothers who received breast care two times a day for two days would be more effective in launching breast milk compared to breast care for one day in 2 times [20,21]. So it can be concluded that the intensity of breast care affects milk production. The more often breast care is carried out, the more breast milk production increases.

Giving therapy to increase milk production is very important to give breast milk as quickly as possible. In this study, the most effective action was providing breast care therapy to postpartum mothers who had babies aged ten days. Breast care therapy can also be given before birth so that there is a lot of milk production at birth. This is so that mothers have good skills in the implementation of Breast Care because training and habituation have been carried out [17,22]. Late breastfeeding will affect the amount of weight loss in the baby, which should normally increase with the average calculation that the baby will experience a weight loss of about 7% on the first to the third day, but on the fourth, to the 10th day, the baby will start to breastfeed. Gain weight by 20 to 35 grams per day and will return to normal weight at birth [23].

The return of the baby's weight at the age of a week to the newborn's weight is an indicator of the ineffectiveness of breastfeeding. A mother's habit of doing breast care independently in the first weeks after giving birth can optimize milk production and accelerate the return of birth weight in the first week of birth [24].

Further research is recommended to control confounding variables, such as maternal food factors because they greatly affect milk production. A mother's regular and nutritious diet can affect breast milk production because the milk-making glands cannot work together perfectly without eating enough [9,20]. The mother's diet is used to get good milk production. The mother's diet must meet adequate calories, protein, fat, vitamins, and minerals [25].

In addition, the age factor also plays a role in breast milk production. In this study, respondents in the control group and the acupuncture group mainly were still <20 years old, a young age who still often experienced psychological problems, so that young mothers felt more afraid and confused when baby crying. This psychological condition of young mothers can affect milk production because it will inhibit prolactin and oxytocin reflexes [26].

Most of the breast care group is 20-35 years old, which is a mature reproductive age. Age maturity affects a person's perception, motivation, and knowledge [5,17,27].

Another drawback in this study is that it only examines in the short term, not until breast milk has matured. Therefore, the effect of GB 21 acupuncture cannot be seen compared to the effect of breast care therapy. GB 21 acupuncture, according to research, can be seen the results after the intervention for 2-4 weeks consistently [28].

Conclusion

Giving breast care action to postpartum mothers is proven to increase breast milk production by assessing the progress of the baby's weight during ten days of birth. At the same time, GB 1 acupuncture requires further research by controlling influencing factors such as maternal diet and maternal activities to clearly show how this therapy works on postpartum mothers in producing breast milk.

Breast care can be taught to mothers since pregnancy. The sooner breast care is done will be a good habit and will reduce barriers to milk production after delivery. This can ensure baby nutrition after birth and motivate mothers to continue breastfeeding until the month of 6th without complementary foods.

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