



## The effect of acupressure therapy on the improvement of breast milk production in postpartum mothers<sup>☆</sup>



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Received 29 May 2019; accepted 15 July 2019

### KEYWORDS

Acupressure;  
ASI production;  
Postpartum mother

### Abstract

**Objective:** Acupressure therapy is a traditional therapy from China where one of the treatments is used to increase milk production in postpartum mothers by doing massage at acupoints CV17, ST18 and SI1 usually only using fingers or blunt objects that do not injure the body surface, which can provide a suppressing effect so that more acceptable and tolerated by patients.

**Method:** The research used was quasi-experiment with pre-post test control group design, which was conducted in the working area of health centre (puskesmas) Pasar wajo sub-district of Buton district with a sample of 70, consisting of 35 intervention groups and 35 control groups.

**Results:** The group that was not given acupressure had a non-significant increase in breast milk production while them given acupressure had a significant increase.

**Conclusion:** Acupressure at the point of CV18, ST17, SI1 with a frequency of 3 times a week for three weeks can increase breastmilk production in postpartum mothers.

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### Introduction

Every mother produces milk that we usually call breast milk. Breast milk is a natural food that is provided for babies, breast milk is also the most important food and is highly recommended for babies at least in the first six months of life. The inadequate and slow release of breast milk is the main reason for the mother to stop breastfeeding because she feels that she does not have sufficient milk production to

<sup>☆</sup> Peer-review under responsibility of the scientific committee of the International Conference on Women and Societal Perspective on Quality of Life (WOSQUAL-2019). Full-text and the content of it is under responsibility of authors of the article.

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**Table 1** Sample description in the intervention and control group.

Characteristics	Control		Intervention		p-Value
	N	%	N	%	
<i>Age</i>					
< 20	1	2.9	1	2.9	0.77
20–35	34	97.1	33	94.3	
> 35	0	0	1	2.9	
<i>Education</i>					
SMP	1	2.9	8	22.9	0.661
SMA	20	57.1	19	54.3	
College	14	40	8	22.9	
<i>Occupation</i>					
IRT	29	82.9	21	60	0.523
Private employees	5	14.3	7	20	
PNS	1	2.9	1	2.9	
Entrepreneur	0	0	6	17.1	
<i>Body mass index</i>					
Normal	34	97.1	35	100	0.681
Abnormal	1	2.9	0	0	
<i>Early breastfeeding initiation</i>					
Yes	35	100	35	100	**
No	0	0	0	0	
<i>Stress</i>					
Yes	0	0	0	0	**
No	35	100	35	100	
<i>Gravida</i>					
1 Child	18	51.4	18	51.4	0.869*
2 Child	8	22.9	7	20	
3 Child	7	20	9	25.7	
> 4 Child	2	5.7	1	2.9	

\* Chi-square test.

\*\* p-Value is not calculated because there is a constant value.

meet the needs of the baby and support the baby's weight gain so that the mother does not give enough milk to her baby. In this case to increase milk production by using one of the therapies, namely acupressure.<sup>1,2</sup>

Acupressure is the development of acupuncture techniques and also non-pharmacological therapies, which are traditional medicine from China by doing massages that are carried out at certain points on the surface of the body in accordance with the acupuncture points. The non-invasive method used is the emphasis on acupuncture points without the use of needles, usually only using fingers or blunt objects that do not injure the surface of the body, which can exert a suppressive effect so that it is more acceptable and tolerated by patients than acupuncture using needles. The points used to increase milk production are acupoints CV17, ST18 and SI1. Therefore, researchers are interested in conducting research on the effect of acupressure therapy on increasing milk production in postpartum mothers.<sup>3</sup>

Acupressure therapy can increase blood and systemic levels of endorphins by affecting brain areas, stimulating beta-endorphin in the brain, and spinal cord from neurotransmitters. The stimulatory effect of the acupressure

point carries the relationship of the substance to the release of substances that are able to inhibit pain signals to the brain through the nerves and can start a humoral transmitter. Endorphins are the body's opiates naturally produced by the pituitary gland, which are useful for reducing pain, affecting memory and mood, which will then provide a relaxed, comfortable feeling and can increase the hormone prolactin.<sup>4</sup>

## Method

### Subject

The subjects of this study were all post-partum mothers who gave birth normally in the Puskesmas Region of Pasarwajo District, Buton Regency, Southeast Sulawesi Province, which was in accordance with the research criteria and was willing to become respondents.

The research instrument used breast milk pumps to measure the volume of breast milk before and after acupressure therapy. While the frequency of defecate babies uses a checklist, checklist sheet is one of the observation tools,

**Table 2** Descriptive volume of breast milk without giving acupressure.

Visit	Average $\pm$ SD	Minimum	Maximum	p-Value
Visit 1	297.43 $\pm$ 89.79	100.00	475.00	0.999*
Visit 2	297.28 $\pm$ 89.65	100.00	475.00	
Visit 3	291.94 $\pm$ 90.69	105.00	475.00	
Visit 4	299.11 $\pm$ 73.75	150.00	450.00	
Visit 5	293.88 $\pm$ 68.28	182.00	475.00	
Visit 6	299.11 $\pm$ 73.75	150.00	450.00	
Visit 7	293.57 $\pm$ 68.32	182.00	450.00	
Visit 8	293.57 $\pm$ 63.32	182.00	450.00	
Visit 9	297.85 $\pm$ 90.25	100.00	475.00	

\* Friedman test.

**Table 3** Volume of breastmilk day by day intervention.

Visit	Rerata $\pm$ SD	Minimum	Maximum	p-Value
Visit 1	305.14 $\pm$ 93.69	100.00	435.00	0.000*
Visit 2	305.00 $\pm$ 93.56	100.00	435.00	
Visit 3	304.18 $\pm$ 94.69	105.00	450.00	
Visit 4	322.08 $\pm$ 95.12	120.00	483.00	
Visit 5	382.55 $\pm$ 85.55	198.00	492.00	
Visit 6	414.03 $\pm$ 73.99	234.00	500.00	
Visit 7	442.48 $\pm$ 61.60	325.00	510.00	
Visit 8	473.94 $\pm$ 50.66	362.00	552.00	
Visit 9	489.74 $\pm$ 42.68	400.00	555.00	

\* Friedman test.

which is intended to obtain data in the form of a list that contains the factors of the subjects to be observed, where the researchers just give a checkmark ( $\checkmark$ ) in the intended column, so that researchers can do their work quickly and objectively because researchers have limited themselves to the aspects observed. This research was conducted after obtaining an ethics agreement from the Health Research Ethics Commission of the Faculty of Medicine, RSPTN Hasanuddin University Makassar.

### Experimental design

This is a quasi-experimental study with a pre-post test control group design. Where this study used two groups: the control group who were not given acupressure therapy and the intervention group who were given acupressure therapy. Informed consent was made before the study was conducted. This research intervention was conducted 3 times/week for each respondent for three weeks.

### Results

To describe the characteristics and identity of the sample used, a univariate analysis was carried out on the variables of age, education, occupation, BMI, BMI, stress, and gravida. Univariate analysis was performed in two sample groups, namely in the intervention group and the control group. there was no significant difference between the control group and the intervention group (Table 1).

Table 2 shows the results of measurements of breastfeeding volume each visit to respondents without acupressure. No significant difference in the volume of breastmilk with the highest volume of breastmilk at visits 4 and 6 with a mean of 299.11 ml/24 h. In line with the absence of a significant difference in the volume of breastmilk at each visit (Table 2).

Table 3 shows the results of measurements of breastmilk volume each visit to respondents who were given acupressure.

### Discussion

Breastmilk is the right of every child until the age of 6 months. Healthy breastfeeding can reduce mortality, mortality, mobility and can increase the body's immunity for the baby's growth and development. However, almost some mothers experience problems regarding breast milk, namely lack of milk production. Many ways are used to increase milk production, one of them is acupressure therapy, this therapy is one of the Chinese medical techniques for doing massage at a certain point. From the results of statistical tests that have been carried out, there are significant differences between the control group and the intervention group. That is, puerperal mothers who were given acupressure therapy for breast milk production increased compared to control groups who were not given acupressure therapy.<sup>5</sup>

## Conclusion

The results of the study found that acupressure therapy at the point ST18, SI1, ST17 with a frequency of 3 times a week for three weeks can increase breastmilk production so that acupressure can be used as a safe non-pharmacological therapy.

## Conflict of interest

The authors declare no conflict of interest.

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