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Combination of Papeda (Metroxylon Sp) and Warm Androgynus Sauropus Compress to Toward Production of Breast Milk

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ABSTRACT

Breasts in general will be enlarged, hard, and uncomfortable because of the increased blood supply to the breasts along with the production of milk. But sometimes breast enlargement can cause pain so that the mother's milk does not come out freely. This study aims to determine the combination of papeda and katuk leaves on the smooth production of breast milk. Quasi-experimental research In the experimental and control groups (n=20) selected using the Cluster Random Sampling technique with the criteria of postpartum mothers who were treated for at least 3 days, gave breast milk with a frequency of fewer than 12 times in 1 day and did not experience psychological disorders. The instrument used is an observation sheet. the provision of warm papeda (Metroxylon sp) compresses with the addition of Sauropus Androgynus was given 2 times, in the morning and evening for 7 days. Data analysis using the Mann Whitney test. The Mann-Whitney test showed a significant difference between the treatment group and the control group, with a P-value of 0.000 which was P <0.05. The conclusion of this study is that there is a significant effect of warm papeda compresses by mixing Sauropus Androgynus on the smooth production of breast milk.

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1. Introduction

Breastfeeding is very important because breast milk is the main food for babies. By giving enough breast milk, the child will grow perfectly. If the baby's growth is perfect, the baby will grow up healthy, gentle, and have high intelligence (Binns et al., 2016). Therefore, it is necessary to pay sufficient attention to breastfeeding. But there are also many mothers who cannot give breast milk to their children because of several factors such as nipples not forming, lack of breast milk, even breast milk not coming out (Milinco et al., 2021).

In order to reduce infant morbidity and mortality, UNICEF and WHO recommend that infants should only be breastfed with breast milk for at least 6 months, and breastfeeding should be continued until the baby is two years old (Bata et al., 2021; Dieterich et al., 2013). In order for mothers to maintain exclusive breastfeeding for 6 months, WHO recommends that initiation of breastfeeding in the first hour of life, infants receive only breast milk without additional food or drink, including water, breastfeed on-demand or as often as the baby wants, and do not use bottles or pacifiers (Martin et al., 2016).

In Indonesia, 29.5% of infants have received exclusive breastfeeding until the age of six months. This is not in accordance with the target of the Strategic Plan of the Ministry of Health for 2015-2019, namely the percentage of infants aged less than 6 months who are exclusively breastfed by 50%. Meanwhile, according to the province, in Yogyakarta alone the percentage of exclusive breastfeeding is in the 6th rank at 75.04%. The highest percentage of exclusive breastfeeding is in West Nusa Tenggara at 87.35%, followed by West Sulawesi at 80.46%, and East Nusa Tenggara at 79.45%. Meanwhile, the lowest percentage of exclusive breastfeeding was in Papua Province at 15.32%, followed by West Papua at 24.65% and Maluku at 30.02% (WHO, 2021).

It is known that breastfeeding is very important for mothers and their babies so that exclusive breastfeeding for up to six months and can be continued until the age of two years has also received serious attention from the government and was re-asserted in the Ministry of Health of the Republic of Indonesia. The government also emphasizes exclusive breastfeeding that every mother who gives birth must give exclusive breastfeeding to her baby (KEMENKES, 2019)

Breasts in general will be enlarged, hard, and uncomfortable because of the increased blood supply to the breasts along with the production of milk. This condition is normal and will last from the third day to the sixth day after delivery. However, sometimes breast enlargement can cause pain so that the mother's milk does not come out freely, therefore there are several efforts made by midwives to help with government programs, namely, it is recommended that mothers breastfeed their babies as often as possible, eat nutritious food, do massage, warm compresses and also You can give jelly compresses like BKA to help the process of removing breast milk. Because Jelly BKA is quite expensive in West Papua, especially in the city of Sorong, so the jelly can be replaced with warm papeda compresses. There are also previous studies that intervened to reduce pain and swelling by applying a 1-2 hour compress using Cabbage leaves to get maximum results

Papeda (Metroxylon sp) is typical food for the people of Papua, West Papua, Maluku, and some areas of Sulawesi which is in the form of a gel or paste. Papeda is the basic ingredient of sago. Sago makes a positive contribution because sago is regional potential in West Papua. In addition to the flour which can be used as a staple food in Papua and West Papua, especially Sorong City, in other provinces, sago is also used as an industrial raw material and degradable plastic and also as a material for making plywood glue (Supu and Jaya, 2018).

It should also be noted that not only sago flour can be used but the leaves and stems of sago palm are also used as roofing materials and handicrafts, as well as walls and floors of houses. Papeda is also rich in health benefits. The most nutritional content in sago is pure carbohydrates. These carbohydrates are included in the category of macronutrients that the body needs in large amounts for energy and brain function. As a benchmark, in 100 grams of sago, there are; 86 grams of carbohydrates, 1 gram of fiber, 0.5 grams of protein, 350 calories, 3 milligrams of sodium, 5 milligrams of potassium, 0.2 grams of total fat 0.1 grams of saturated fat which can be used in mothers as antioxidants, anti-prebiotics, anti-irritants on the skin, during dilation of blood vessels so that it can facilitate the release of breast milk in postpartum mothers, besides that it can also prevent heart disease, lung cancer, and many others (Sakinah, 2018).

In addition, Papeda is also rich in benefits for babies whereas Papeda contains calcium, iron, potassium, Vitamin A, and vitamin K which are needed by babies for healthy bone growth and development. In addition, Papeda can also be useful for providing calcium to toddlers who have stopped breastfeeding or those who do not like to drink milk (Mahulette et al., 2021).

Katuk leaves (Sauropus Androgynus) Katuk is a plant that grows a lot in Papua, especially in West Papua. The leaves of this katuk will contain quite a variety of nutrients. In 100 grams of katuk leaves, there are about 35 calories and various nutrients, such as 5-7 grams of protein, 1 gram of fat, 1.8-2 grams of fiber, 250 milligrams of vitamin C, 190 milligrams of folate, 1 milligram of zinc, 45 milligrams of potassium. 120 milligrams of magnesium, 170 milligrams of calcium, 2.7 milligrams of iron, besides that Katuk leaves also contain lots of vitamin A, vitamin B complex, and various antioxidants, such as polyphenols, flavonoids, lutein, and zeaxanthin. Seeing so much content in this katuk leaf, it is certain that it will also be rich in benefits for health in general and it is also important for pregnant women, childbirth, and postpartum mothers for smooth breastfeeding (Asokawati et al., 2021).

Based on the initial survey by interviewing the implementing midwives in the field in several health care places in the city of Sorong, there were 46% of cases that did not breastfeed for 6 months, specifically at the Sele Be Solu Hospital who had not given breast milk after the third day of postpartum as many as 57% of the total 1,300. of mothers who gave birth either normally or abnormally in 2020, who gave breast milk smoothly as many as 560 people, there were those who did not give breast milk smoothly 640 people and in 2021 from January to June there were 453 people who were treated in the postpartum ward. Those who give breast milk are around 350 people and 103 who do not give breast milk for various reasons such as the breast milk has not come out, the milk is not enough, and there are still many other reasons.

By looking at the number of incidents in the Sele Be Solu general hospital, then you will see the nutritional content and rich benefits of papeda (Metroxylon sp) and katuk leaves (Sauropus Androgynus). For this reason papeda (Metroxylon sp) and katuk leaves (Sauropus Androgynus which are made from sago can be processed into papeda which resembles jelly or glue that can be used to compress the breast so that breast milk comes out smoothly. This study aims to determine the combination of papeda and katuk leaves on the smooth production of breast milk.

2. Method

Quasi-experimental research In the experimental and control groups (n=20) selected using the Cluster Random Sampling technique with the criteria of postpartum mothers who were treated for at least 3 days, gave breast milk with a frequency of fewer than 12 times in 1 day and did not experience psychological disorders.

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The instrument used is an observation sheet. the provision of warm papeda (Metroxylon sp) compresses with the addition of Sauropus Androgynus was given 2 times, in the morning and evening for 7 days. The study was conducted from October to November 2021. Before giving warm papeda (Metroxylon sp) compresses, the samples were processed by preparing Papuan sago flour which had been filtered and soaked in cold water so that the sago flour became watery and settled. Then the sago is separated from the water and then dried using the heat of the sun and checked for content in the laboratory. Data analysis using the Mann Whitney test.

3. Results and Discussion

3.1 Univariate Analysis

This study was followed by 20 respondents in the experimental group and 20 respondents in the control group. Respondents were aged 19-35 years who became the most respondents in the two groups with primary and secondary education levels, being civil servants, a history of primiparous pregnancy with problems with breastfeeding are not smooth. The data is presented in table 1.

Table 1
Characteristics of respondents

Variables	Experimental Group		Control Group	
	n	%	n	%
Age (Years)				
<19	5	25	3	15
19-35	13	65	14	70
>35	2	10	2	10
Education				
Primary And Secondary Education	13	65	15	75
higher education	7	35	5	25
Work				
Government employees	7	35	8	40
entrepreneur	3	15	1	5
Private	4	20	8	40
Does not work	6	30	3	15
Pregnancy History				
Primipara	15	75	17	85
Multipara	5	25	3	15
Breast milk smooth				
Not smooth	16	80	17	85
Fluent	3	20	4	15

3.2 Bivariate Analysis

Table 2
Test the effectiveness of warm papeda compresses by mixing Sauropus Androgynus on smooth milk production

Group	n	Mean Rank	p-value
Experimental Group	20	17.50	0.000
Control Group	20	13.50	

Based on table 2 data, the Mann-Whitney test showed a significant difference between the treatment group and the control group, with a P-value of 0.000 which was P <0.05. So the conclusion from the results of this study there is a significant effect. Warm papeda compresses by mixing Sauropus Androgynus against the smooth production of breast milk.

3.3 Discussion

Based on the results of research that has been carried out from 40 postpartum mothers who experience non-smooth breastfeeding as a treatment and control, there is an increase in the smooth production of breast milk in the treatment group, so it can be said that there is an effect of giving warm papeda compresses. by mixing Sauropus Androgynus on the smooth production of breast milk for 7 days. This is in accordance with the theory that hot compresses cause a warm effect and a cutaneous stimulation effect in the form of touch. This effect can cause the release of endorphins, thereby blocking the transmission of painful stimuli (Yam et al., 2018) .

The way it works is that heat stimulation in the local area will stimulate the receptors under the skin and activate the transmission of larger and faster A-beta sensory fibers. This process also reduces pain transmission through small diameter C and delta A fibers. This situation causes the synaptic gate to close the transmission of pain impulses (Wagner et al., 2016)

Warm compresses will also produce physiological effects for the body, namely vasodilating effects, increasing cell metabolism, and relaxing muscles so that pain is felt to be reduced. When heat is received by the receptor, the impulse will be forwarded to the posterior hypothalamus, a sympathetic inhibitory reflex reaction will occur which will make blood vessels dilate (Ketsuwan et al., 2018) .

Another study found that there was a significant effect of drinking herbal habits with breast milk production and there was an increase in the volume of colostrum breast milk after doing neck massage and breast massage with warm compresses (Ihudiebube-Splendor et al., 2019; Motee and Jeewon, 2014).

4. Conclusion

Giving warm papeda compresses by mixing Sauropus Androgynus on the smooth production of breast milk in Sele Be Solu Hospital has a significant effect. We suggest that research based on Papua's local natural resources such as sago and katuk leaves can continue to be carried out and implemented in women giving birth. We suggest that further research can examine the variables of breast pain after being compressed.

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