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THE EFFECTIVENESS OF GUAVA LEAVES IN THE LONG TIME HEALING OF PERINEAL WOUNDS OF POSTPARTUM MOTHERS AT MIDWIFES INDEPENDENT PRACTICE IN BENGKULU CITY

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Abstract

Based on data from the World Health Organization, the direct causes of death in other countries are the same, namely bleeding (28%), eclampsia (24%) and postpartum infection (1%). There are infections with a proportion (20-30%) of cases of infection caused by infection of the birth canal or perineal rupture. Cases of laceration or rupture of the perineum in maternity women worldwide occur in 2.7 million people. Based on the results of a survey conducted at one of the Independent Practices of Midwives in Bengkulu City, data on the number of mothers giving birth from January-July 2021 was 58 people and the incidence of perineal injuries with episiotomy was 38 mothers (65%). The average perineal wound healing time is 7-10 days. The design used in this study was a quasi-experimental. The sampling technique in this study was accidental sampling. The total number of samples was 15 respondents in the guava leaf group and 15 respondents in the comparison group. Statistical analysis used is the Mann Whitney test. The results of this study were the average length of perineal wound healing with guava leaves was 5.47 days, while for binahong leaves it was 5.63 days. There is an effect of guava leaves on the duration of perineal wound healing with a p value of 0.003 which means that guava leaves are effective on the duration of perineal wound healing in postpartum mothers. The most dominant influence of other variables on perineal wound healing is nutritional intake.

Keywords: Guava Leaf, Perineal Wound Healing, Postpartum Mother

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INTRODUCTION

Based on data from the World Health Organization, the direct causes of death in other countries are the same, namely bleeding (28%), eclampsia (24%) and postpartum infection (1%). There is infection with a proportion (20-30%) of cases of infection caused by infection of the birth canal or perineal rupture. There are 2.7 million cases of perineal laceration or rupture in women giving birth worldwide. this figure is estimated to reach 6.3 million in 2050. In Asian countries perineal lacerations are quite a problem in society, (50%) in the world occur in Asia (WHO, 2019).

The Maternal Mortality Rate (MMR) in Indonesia is directly caused by postpartum hemorrhage (30.3%) and hypertension (27.1%). Meanwhile, deaths were indirectly caused by diseases that existed during pregnancy, namely malaria (13.45%), anemia (11.9%), HIV/AIDS (3.2%) and cardiovascular disease (3.1%) (Kemenkes RI, 2019) . Based on data from the City of Bengkulu in 2020, the causes of death for postpartum mothers are due to bleeding, disorders of the circulatory system and infections after giving birth. One of the infections after giving birth is due to infection of the perineal wound. Care during the postpartum period is needed in this case, because it is a critical period for both mother and baby (Dinkes Kota Bengkulu,2020).

Treatment of perineal wound care aims to prevent infection, increase a sense of security and accelerate healing. Treatment of perineal wounds is grouped into pharmacological and non-pharmacological therapies. Pharmacological therapy is therapy with chemical drugs such as antibiotics and antiseptic drugs (povidone iodine) which can cause side effects including ioderma, chemical burns, to anaphylactic reactions (Abshor & Basuki, 2019). Non-pharmacological wound care such as using leaves from plants containing alkaloids, saponins, tannins, and flavanoid secondary metabolite compounds that function to heal wounds, such as using guava leaves and binahong leaves. Plants derived from nature are cheaper and easier to obtain (Abshor & Basuki, 2019).

Based on the results of a survey conducted at one of the Mandiri Midwives Practices in the City of Bengkulu, it was obtained data on the number of mothers giving birth from January to July 2021 as many as 58 people and the incidence of perineal wounds with episiotomies as many as 38 mothers (65%). The average perineal wound healing time is 7-10 days. Treatment of perineal wounds is only washing using plain water, this data is obtained from the results of interviews.Based on the data above, the researcher is interested in conducting a case study entitled "Effectiveness of Guava Leaves on the Perineal Wound Healing Time in Postpartum Mothers at the Mandiri Midwife Practice in Bengkulu City in 2021".

MATERIALS AND METHODS

This research is a type of quantitative research. The design used in this study was a quasi experiment using a two group post test only design approach. The population of this study were postpartum mothers on day 1 at the Mandiri Midwife Practice in Bengkulu City for the June-July 2021 period, totaling 68 people. The sampling technique in this study was acidental sampling. Based on the calculation results, the total sample size is 15 respondents in the guava leaf group and 15 respondents in the comparison group. Data collection using observation sheet Reeda scale, food recall, questionnaire and data collection by way of interviews and observations with the measurement results in the form of time obtained in perineal wound healing in units of days. All data obtained were tested for analysis using independent t-test.

RESULTS AND DISCUSSION

The results of Univariate analysis can be seen in the table as follows:

Table 1: Frequency Distribution of Age Characteristics, Nutrition Intake, Mobilization in Bengkulu City Midwives' Independent Practice (n=15)

No	Variable	Group			
		Intervention Guava leaves (N=15)	**percent (%)**	**Comparison Binahong leaves (N=15)**	**Percent (%)**
1.	**Age**				
	<35 years	11	73,3	10	66,7
	>35 years	4	26,7	5	33,3
2.	**Mobilization**				
	- Fast	12	80,0	12	80,0
	- Slow	3	20,0	3	20,0
3.	**Insufficient Nutrition**				
	- Good	13	86,6	12	80,0
	- Intake	2	13,4	3	20,0

Based on table 1 it is known that based on the intervention group most (73.3%) were aged <35 years, in the comparison group a small proportion (33.3%) were aged> 35 years. The mobilization variable was that in the intervention group and the comparison group, the majority (80%) of mothers mobilized quickly. Based on the nutritional intake variable, the majority (86.6%) of postpartum

mothers had good nutrition. In the comparison group, a small proportion (20.0%) of mothers were malnourished.

Table 2: The average duration of healing of second-degree perineal wounds in postpartum women in the intervention group (Guava leaves) and the comparison group (Binahong leaves) at the Independent Midwife Practice in Bengkulu City

Variable	N	Mean	Beda Mean	Median	Min	Max	SD
Guava Leaf Group	15	5,47	0,16	5	4	7	0,833
Binahong Leaf Group	15	5,63		6	4	7	0,990

Based on table 2 it is known that in the intervention group the average length of healing for perineal wounds was 5.47 days. The fastest healing time is 4 days and the longest is 7 days. Meanwhile, in the comparison group, the average length of healing for perineal wounds was was 5.63 days. The fastest healing time is 4 days and the longest is 7 days.

The results of the univariate analysis described the frequency distribution of respondents based on the intervention group and the comparison group showing that the majority of mothers (70%) were of normal age. The age factor is a factor that can affect perineal wound healing because the function of unifying skin tissue at an unproductive age has decreased skin elasticity and differences in collagen turnover (Sari, 2020).

It can be seen from the mobilization variable that in the intervention and comparison groups the majority (80%) of mothers mobilized quickly and (20%) of mothers mobilized slowly due to certain factors. Mobilization can improve blood circulation in the mother after giving birth, and is a prominent factor in accelerating postpartum recovery, early mobilization is the most important aspect of physiological function because it is essential to maintain independence (Manuntungi *et al*., 2019).

The results of the bivariate analysis can be seen in the table as follows:

Table 3: The Effect of Guava Leaves and Binahong Leaves on the Time of Healing of Perineal Wounds in Postpartum Mothers in the Independent Practice of Midwives in Bengkulu City.

Variable	N	Mean	Beda Mean	SD	*P Value*
Guava leaf intervention	15	5,47	0,16	0,833	0,002
Comparison of binahong leaves	15	5,63		0,990	0,004

uji *Wilcoxon*

Based on table 3 above, it can be concluded that there is an effect on guava leaves and binahong leaves on the healing time of perineal wounds with a p value of guava leaves of 0.002 and a p value of

binahong leaves of 0.004. The results of previous research state that there is an effect of giving decoction of binahong leaves on the healing of perineal wounds in postpartum women. Binahong leaves have anti-inflammatory, analgesic and antioxidant activity. Through this function, binahong leaves are able to accelerate the healing of second degree burns. Treatment with boiled water from squeezed binahong leaves is able to inhibit the growth of bacteria in vitro, namely salmonella typhi bacteria, Escherichia coli bacteria and Propionibacterium acnes bacteria (Gusnimar *et al*., 2021). There is a significant difference perineal wound healing after given intervention binahong decoction water and bethadine. The percentage of respondents who experienced a perineal wound healing in binahong decoction water group better than bethadine group (Wijayanti & Esti, 2017). The results of the study showed that administration of guava leaf extract with an alcohol solvent experienced faster wound healing than the other groups (p<0.05). There is a relationship between the effect of DAMBI (Guava Leaves) on healing wounds on the skin (Abshor & Basuki, 2019).

Table 4: Effectiveness of Guava Leaves on the Time of Healing of Perineal Wounds in Postpartum Mothers in the Independent Practice of the Bengkulu City Midwife

Variable	N	Mean	Beda Mean	SD	*P Value*
Guava leaf intervention	15	5,47	0,16	0,833	0,003
Comparison of binahong lraves	15	5,63		0,990	

uji *Mann-Whitney*

Based on table 4 above, it can be concluded that there is effectiveness in guava leaves for the healing time of perineal wounds and there is a difference in the average perineal wound healing time in the intervention group of 5.47 days and the comparison group of 5.63 days with an average difference of 0. 16 and a p-value of 0.003.

Based on the results of the analysis of the effect of guava leaves on the healing time of perineal wounds, it was found that the average wound healing was 5.47 days with a p value of 0.003 <0.05 so it can be concluded that there is effectiveness of guava leaves and binahong leaves on the long healing time of wounds. perineum. Decoction of guava leaves is given 2x a day for cebok in the morning and evening as much as 800ml until the wound heals well with a Reeda scale score of 0.

The results of this research support previous research conducted by (Zuhana et al., 2018) Based on analysis of data from the guava leaf treatment group with a p value of 0.000, there was an influence of guava leaves on accelerating perineal wound healing in postpartum mothers. This strengthens the research conducted by Garcia, et al in 2017 about "Comparison of the Efficacy of Guava Leaves Extract as Hot Steam and Wash versus Intake of Oral Antibiotic for Postpartum Wound Healing after a normal Spontaneous Vaginal Delivery With Episiotomy". The results of this study showed that the

average Reeda score in the guava leaf group, antibiotic group, guava leaf group combined with antibiotics was significantlyp-value < 0.05 with average healing on day 5

Table 5: The Effect of Other Variables on Perineal Wound Healing Time in Postpartum Mothers at the Independent Midwife Practice in Bengkulu City

Variable	N	Mean Rank	Z	*P Value*
Age	30	12,75	-.530	0,72
Mobilization	30	12,86	-.1,120	0,67
Nutritional Intake	30	12,09	-.121	0,018

Based on table 5, it can be concluded that other variables that affect the healing time of perineal wounds are nutritional intake with a p value (0.018) <0.05, which means there is a relationship between nutritional intake and perineal wound healing time, while age and mobilization have no relationship because p value > 0.05.

Based on the results of the analysis, it was obtained data that from 15 respondents who were aged <35 years experienced rapid healing. However, from the results of the chi square test analysis, a p value of 0.72 > 0.05 was obtained, which means that there is no relationship between age and the duration of perineal wound healing in postpartum mothers. This is not in line with research (Rohmin *et al*., 2017), said that there was a relationship and a significant difference in age with perineal wound healing time.

This research is not in accordance with the theory put forward by (Sari, 2020), that the age < 35 years experience rapid healing of perineal wounds. Increasing age will affect all phases of wound healing due to circulation and coagulation disorders, slower inflammatory response and decreased fibroblast activity.

Based on the analysis of the relationship between mobilization and the perineal wound healing time, a p value of 0.67 > 0.05 was obtained, meaning that there was no relationship between early mobilization and perineal wound healing time. This is not in line with the research put forward by (Rezeki *et al*., 2015) with the results of the analysis obtained a p value of 0.12 <0.05, which means there is a relationship between early mobilization and perineal wound healing. The benefits of early mobilization include accelerating the process of removing lochia and helping the perineal wound healing process.

Based on the analysis of the effect of nutritional intake, there is a significant effect on the healing time of perineal wounds (p value <0.05, obtained a p value of 0.018. This is in accordance with research

(Manuntungi *et al*., 2019) stated that several nutrients, both macronutrients and micronutrients, play an important role in collagen synthesis, accelerate perineal wound healing and minimize infection.

CONCLUSION

The conclusion in this research is there is the effectiveness of guava leaves and binahong leaves on the length of healing of perineal wounds, by giving a decoction of guava leaves which contains anti-bacterial can prevent infection and steroids can reduce inflammation (anti-inflammatory) thereby. speeding up wound healing. And binahong leaves contain saponins, alkaloids and polyphenols. As a wound medicine, binahong contains several chemical ingredients, namely fresh flavonoids, oleanolic acid, protein, saponins and ascorbic acid which can speed up wound healing.

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