

THE EFFECTIVENESS OF YOUNG BECAUSE SIMPLICIA FOR THE HEALING OF PERINEAL WOUNDS IN PUBLIC WOMEN

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ABSTRAK : EFEKTIVITAS SIMPLISIA BUAH PINANG MUDA DENGAN KESEMBUHAN LUKA PERINEUM PADA IBU NIFAS

Pendahuluan: Jumlah kematian ibu di Kota Medan pada tahun (2020), sebanyak 187 jiwa dari 299.198 kelahiran hidup, dengan Angka Kematian Ibu (AKI) sebesar 62,50 per 100.000 kelahiran hidup, artinya dari 100.000 kelahiran hidup 187 ibu meninggal saat kehamilan 62, bersalin 64, dan 61 kematian ibu nifas. Hampir dari 90% pada proses persalinan banyak ibu yang mengalami robekan perineum ,baik dengan sengaja maupun episiotomi.

Tujuan : penelitian ini untuk mengetahui Efektivitas Simplisia Buah Pinang muda Dengan Kesembuhan Luka Perineum Di Klinik Wanti Medan tahun 2023.

Metode : Penelitian ini menggunakan metode *True Experimental*, dengan pendekatan rancangan *Posttest Only Control Group Design*. Teknik pengambilan sampel dengan menggunakan *Population Sampling* dengan jumlah responden 20 ibu nifas mulai hari ke-1 postpartum dengan 10 orang sebagai kelompok intervensi dan 10 orang sebagai kelompok kontrol. Analisis data univariat dan bivariat.

Hasil : penelitian menunjukan bahwa hasil uji statistik dengan menggunakan uji *Mann Whitney*, diperoleh hasil perhitungan $p\text{-value} = 0,000 < \alpha 0,05$, berarti terdapat efektivitas yang signifikan menggunakan simplisia buah pinang muda dengan kesembuhan luka perineum. Kesembuhan terjadi lebih cepat pada kelompok intervensi yang dimana mengalami kesembuhan rata-rata <6 hari sebanyak 9 orang (90,0%) pada kategori cepat. Sedangkan pada kelompok kontrol rata-rata mengalami kesembuhan 6-7 hari sebanyak 6 orang (60,0%) pada kategori normal.

Kesimpulan : dalam penelitian ini adanya Efektivitas Simplisia Buah Pinang Muda Dengan Kesembuhan Luka Perineum Pada Ibu Nifas Di Klinik Wanti Medan Tahun 2023. Disarankan tenaga kesehatan khususnya pelayanan kebidanan di Klinik Wanti Medan, agar mendukung ibu untuk mengaplikasikan terapi komplementer simplisia buah pinang muda untuk mempercepat kesembuhan luka perineum.

Kata Kunci : Buah Pinang Muda, Luka Perineum

ABSTRAK

Background: The number of maternal deaths in Medan City in 2020 was 187 out of 299,198 live births, with a Maternal Mortality Rate (MMR) of 62.50 per 100,000 live births, meaning that out of 100,000 live births 187 mothers died during pregnancy, 62. 64 births, and 61 postpartum maternal deaths. Nearly 90% of mothers experience a perineal tear in the birth process, either intentionally or with an episiotomy. The aim of this research is to determine the effectiveness of young betel nut simplicia in healing perineal wounds at the Wanti Clinic in Medan in 2023. This research design uses the True Experimental method, with a Posttest Only Control Group Design approach. The sampling technique uses Population Sampling with a total of 20 mothers as respondents. postpartum starting on day 1 postpartum with 10 people as the intervention group and 10 people as the control group. Univariate and bivariate data analysis. The results of the research show that the results of statistical tests using the Mann Whitney test, obtained a p-value calculation of $= 0.000 < \alpha 0.05$, meaning that there is significant effectiveness of using young areca nut simplicia in healing perineal wounds. Healing occurred more quickly in the intervention group, where 9 people (90.0%) experienced healing on average <6 days in the fast category. Meanwhile, in the control group, an average of 6 people (60.0%) experienced recovery in 6-7 days in the normal category. The conclusion of this research is the effectiveness of young betel nut simplicia in healing perineal wounds in postpartum mothers at the Wanti Clinic in Medan in 2023. It is recommended that health workers, especially midwifery services at the Medan Wanti Clinic, support mothers in applying complementary therapy of young betel nut simplicia to speed up wound healing. perineum.

Keywords: Young Areca Fruit Simplicia, Perineal Wounds

INTRODUCTION

The postpartum period is the period that the mother will go through after childbirth, which starts after the birth of the baby and placenta, namely after the end of the fourth stage of labor and ends up to 6 weeks (42 days) which is marked by the cessation of bleeding. The postpartum period comes from the Latin word *puer*, which means baby, and *paros*, which means to give birth, which means the recovery period, starting from childbirth until the reproductive organs return to the way they were before pregnancy (Nurul Azizah dan Rafhani Rosyidah, 2019).

Injury to the birth canal can occur intentionally, such as during an episiotomy. Incision wounds that are straight (even) are easier to repair and heal more quickly than lacerations that tear irregularly and uncontrollably. Nearly 90% of people in labor experience perineal tears, either accidentally or through episiotomy (Zeranika et al., 2022).

Perineal tears are tears that occur during labor and occur in almost all first or subsequent deliveries. Perineal care fulfills the need to nourish the area between the thighs bordered by the vulva and anus in the mother during the birth of the placenta until the organ returns to its pre-pregnancy state. Most perineal tears occur spontaneously or with episiotomy (Klinik et al., 2020).

Based on data from the World Health Organization (WHO) in 2020, around 75% of the direct causes of maternal death occur after giving birth, which is caused by infection and the postpartum period. Based on the 2019 Riskesdes in Indonesia, the MMR is still relatively high, namely 306 per 100,000 live births and in 2020 it will be 300 per birth. This figure is still far from the Sustainable Development Goals (SDGs) target of 70 per 100,000 live births in 2030. To achieve this target requires hard work, especially compared to several ASEAN countries, the MMR in Indonesia is still relatively high. MMR in ASEAN countries averages 40-60 per 100,000 live births (Organization, 2023).

According to the Indonesian demographic and health survey (SDKI) in 2022, the main causes of death among Indonesian mothers are (27%), eclampsia (23%), infection (11%), abortion (5%), prolonged labor (5%), embolism. obstetrics (3%), perineal complications (8%) (Indonesia, 2022).

Areca nut seeds contain alkaloids, flavonoids, saponins and tannins which can heal wounds, where alkaloid compounds are efficacious for wound bleeding, saponins and flavonoids act as antimicrobial and anti-inflammatory (Farmasi et al., n.d.).

According to the 2020 RI Indonesia Health Profile, in general there was an increase in MMR in

2020 of 4,627 maternal deaths in Indonesia compared to 2019, namely 4.22 people. The causes of the increase in the number of AKI in 2020 were caused by bleeding with 1,330 cases, hypertension in pregnancy with 1,110 cases, and circulatory system disorders with 230 cases. Efforts to accelerate the reduction of MMR can be made by ensuring that every mother has access to quality maternal health services, such as health services for pregnant women, birth assistance by trained health workers in health service facilities, postpartum care by trained health workers in health service facilities, postpartum care for mothers and babies, special care and referrals if complications occur, and family planning services including postnatal family planning. From 2007 to 2020, health service coverage for K4 pregnant women tends to increase. However, it decreased in 2020 compared to 2019, namely from 88.54% to 84.6%. This decrease is assumed to occur due to program implementation in areas affected by the COVID-19 pandemic (Profil Kesehatan Indonesia, 2020).

According to the 2020 North Sumatra Health Profile, the number of maternal deaths in Medan City (2020) was 187 out of 299,198 live births, with a Maternal Mortality Rate (MMR) of 62.50 per 100,000 live births, meaning that out of 100,000 live births 187 mothers died during pregnancy. 62, maternity 64, and 61 postpartum maternal deaths. The MMR in Medan City has decreased compared to the year (2019) when the number of maternal deaths was 202 out of 302,555 live births, with a Maternal Mortality Rate (MMR) of 66.76 per 100,000 live births. In general, the number of maternal deaths has decreased in the last 5 years, where in 2016 the number of maternal deaths was 235 people, decreased in 2017 and 2018, respectively to 205 people and 185 people, in 2019 it increased to 202 people, and decreased again in 2020 to 187 people from 299,198 live births (Profil Kesehatan Sumatera Utara, 2020).

Based on research conducted by Arif Azis et al regarding the activity of areca nut extract (*Areca catechu* L) on the healing of rabbit cut wounds in 2022, the results of the researchers showed that the group given areca nut ethanol extract could speed up the healing of rabbit cut wounds, namely with concentration. 7% compared with the group given Na-CMC and the group given nebacetin powder (Azis et al., 2022).

According to research conducted by Citra Sauma Ramadhan 2021 regarding the effectiveness of water boiled with young betel nut seeds and Kandis acid on pain intensity and wound healing in postpartum women. In 22 respondents, the results

showed that there were differences between the intervention group and the control group, where the research results showed that therapy using Boiled water from young areca nut seeds and kandis acid is effective for treating pain and accelerating the healing of perineal wounds in postpartum mothers (Citra Shauma Ramadhan, 2021) .

According to research conducted by Merry Hardiani 2019 on the Effect of Giving Chitosan Emulgel, Areca Seed Extract (Areca catechu. L) on Healing Burns in Rats, research results were obtained from the results of phytochemical screening of areca nut extract containing alkaloid, flavonoid, tannin and saponin compounds. The post hoc test results obtained an effective concentration with a significant value of 0.000 compared to negative control and the most effective concentration was obtained, namely 20% emulgel which was proven to reduce the area of burns (Merry Hardiani, 2019) .

The aim of this research is to determine the effectiveness of young betel nut simplicia in healing perineal wounds at the Wanti Clinic in Medan in 2023.

RESEARCH METHODS

This research uses a research design (True Experimental) with a Posttest Only Control Design approach. In this design, researchers measure the effect of treatment (intervention) on the experimental group by comparing it with the control group. This research was conducted at the Midwife Wanti Practice Clinic. The sample in this research was 20 people and divided into 2 groups. 10 people for the intervention group and 10 people for the control group. The postpartum mothers used were postpartum mothers on the first day who experienced grade I and II perineal wounds. The intervention group was given water boiled using 10 grams of dried young areca nut simplicia, then boiled for 15 minutes with 800 ml water, wait until it boiled until half the water remained or 400 ml, given for 8 days, while the control group just normal wound care.

RESEARCH RESULTS

Respondent Characteristics

The characteristics of the research subjects in this study included maternal age, parity and degree of injury with the following frequency distribution:

Table 1
Frequency Distribution Based on Age of Respondents in the Experimental Group and Control Group

Characteristics	Group			
	Intervention		Control	
	f	%	f	%
Age				
<20 Years	1	10,0	1	10,0
21-35 Years	9	90,0	9	90,0
Parity				
Primigravida	6	60,0	5	50,0
Multigravida	4	40,0	5	50,0
Degree of Perineal Wound				
Degree 1	3	30,0	3	30,0
Degree 2	7	70,0	7	70,0

Based on table 1, the frequency distribution above can be seen from the 20 respondents, the majority of mothers' age in the experimental group was 21-35 years as many as 9 respondents (90.0%) and the minority of mothers' age <20 years was 1 respondent (10.0%), Furthermore, the majority of mothers aged 21-35 years in the control group were 9 respondents (90.0%) and the minority aged <20 years was 1 respondent (10.0%). The majority of research respondents in the experimental group were 6 respondents (60%) in the primigravida category and the minority were 4 respondents (40.0%) in the multigravida category. Furthermore, the average parity in the research control group was 5 respondents (50.0%) with the primigravida

category and 5 respondents (50.0%) with multigravida pregnancy. The majority of the degree of injury of research respondents in the experimental group was 7 respondents (70.0%) in the grade 2 category and the respondents and minorities were 3 respondents (30.0%) in the category of grade 1. Furthermore, the majority of the degree of injury in the control group of the study was 7 respondents. (70.0%) in the 2nd degree category and 3 minority respondents (30.0%) in the 1st degree category.

Univariate Analysis

Perineal Wound Healing

Perineal wound healing in this study was categorized into 3 types, namely slow, fast, normal with the following frequency distribution:

Table 2
Frequency Distribution of the Effectiveness of Young Areca Fruit Simplisia in Healing Perineal Wounds in Postpartum Women

Periennial Wound Healing	Kelompok			
	Intervention		Control	
	F	%	f	%
Slow	-	-	4	40,0
Fast	9	90,0	-	-
Normal	1	10,0	6	60,0

Based on table 3, the frequency distribution of respondents is based on postpartum mothers who experienced perineal wounds who were given young areca nut simplisia and those who were not given young areca nut simplisia at the Wanti Medan clinic in 2023. It is known that of the 10 postpartum women who experienced fast wound healing, 9 respondents (90.0%) and normal wound healing in 1 person (10.0%). Meanwhile, postpartum mothers with perineal wound healing who were not given young

areca nut simplisia found that of the 10 respondents who experienced normal wound healing, there were 6 people (60.0%) and 4 people (40.0%) had slow wound healing.

Bivariate Analysis

Bivariate results are used to determine the influence between the independent variable and the dependent variable which are analyzed using the normality statistical test first.

Normality Test

Table 4
Normality Test Results

Giving Simplisia Young Areca Fruit	Shapiro- wilk		
	Statistic	Df	Sig
Giving	.366	20	.000

a. Lilliefors Significance Correction

In the normality test above, the Shapiro-Wilk value can be seen, namely the sig value ($p < 0.05$). Thus the data is not normally distributed, namely the next step is to use the Non-Parametric Test with the Man Whitney Test. Uji Non parametrik dengan Uji Mann Whitney

Table 5
Effectiveness of Young Areca Fruit Simplisia for Healing Perineal Wounds

Group	n	Mean Rank	Sum of Rank
Intervention	10	5.50	55.5
Control	10	15.50	155.00

Based on table 5, the mean rank or average recovery value in the intervention group was 5.50, while the number or positive rank or sum of ranks was 55.50. The mean rank value or average of the control group was 15.50, while the number of positive ranks or sum of rank was 155.00, so it can be concluded that the intervention group who were given young betel nut simplisia experienced faster recovery than the control group who were not given young areca nut simplisia.

Test Statistics^a

kelompok_ Intervensi	
Mann-Whitney U	.000
Wilcoxon W	55.000
Z	-3.987
Asymp. Sig. (2-tailed)	.000
Exact Sig. [2*(1-tailed Sig.)]	.000 ^b

a. Grouping Variable: Kelompok

b. Not corrected for ties.

Based on the statistical test table above, it is known that the Mann Whitney U value is 0.000 and the Wilcoxon value or average deviation value between the intervention group and the control group is 55,000. If converted or changed to a Z value of -3.987, with an asymp sig (2-tailed) value of 0.000.

Because the value of 0.000 is smaller than <0.05 , it can be concluded that "Ha is accepted", meaning that there is a difference between the value of the length of recovery when given young areca nut simplicia and those who are not given young areca nut simplicia, so it can be interpreted that there is effectiveness of Young Pinang Fruit simplicia. "With Healing of Perineal Wounds in Postpartum Women at the Wanti Medan Clinic in 2023"

DISCUSSION

Effectiveness of Young Areca Fruit Simplicia for Healing Perineal Wounds at Klinin Wanti Medan in 2023

Based on research conducted at the Wanti Clinic in Medan in 2023, there were 20 respondents, with 10 people each given young areca nut simplicia and 10 people who were not given young areca nut simplicia. The statistical analysis of the Mann Whitney test was obtained, namely asymp sig (2-tailed) with a value of 0.000. Because the value of 0.000 is smaller than <0.05 , it can be concluded that "Ha is accepted", meaning that there is a difference between the value of the length of recovery when given young areca nut simplicia and those who were not given young areca nut simplicia, so it can be interpreted that there is effectiveness of young areca nut simplicia. With Healing of Perineal Wounds in Postpartum Women at the Wanti Clinic in Medan in 2023"

The distribution frequency of healing of perineal wounds in the group given young betel nut simplicia in this study experienced faster healing of perineal wounds, where the average healing was >6 days for 9 people (90.0%) precisely on the 4th and 5th day in the category fast and in the normal category, 1 person (10.0%) experienced recovery, precisely on day 6, compared to the control group, the average recovery occurred on day 6-7 with the normal category being 6 people (60.0%) people and in the <7 days category with 4 people (40.0%) in the slow category who experienced recovery on the 8th day.

Injury to the birth canal can occur intentionally, such as during an episiotomy. Incision wounds that are straight (flat) are easier to repair and heal more quickly than lacerations that tear irregularly and uncontrollably. Nearly 90% of births experience perineal tears, either intentionally or by episiotomy (Zeranika et al., 2022).

The process of healing perineal wounds is interrelated, starting from the process of reducing the size of the wound, followed by reducing the redness of the wound on the perineum of postpartum mothers, which initially turns dark red, changes to

pale red or fades from before. For 5 days, perineal wound treatment is carried out using fruit simplicia. matchmaker. Edema is a form of wound inflammation, in this process there is an increase in blood flow to the arteries to the damaged tissue which aims to transport plasma proteins and cells to the wound surface to prevent infection from entering. Wound healing can also be influenced by nutrition, cleanliness, adequate rest, age, stress, obesity, and infection (3).

Perineal care is to prevent infection in connection with tissue healing. Infection causes increased inflammation and necrosis which inhibits wound healing. The presence of foreign objects, extensive tissue exfoliation will slow healing and the tensile strength of the wound remains low. Because rough and wrong treatment can result in new blood capillaries being damaged and bleeding and wound healing stopping. The possibility of infection in wounds due to improper care can increase with the presence of inanimate and foreign objects (Olivia Trimonica, 2022).

Areca nut seeds contain alkaloid, flavonoid, saponin and tannin compounds which can heal wounds, where alkaloid compounds are efficacious for wound bleeding, saponins and flavonoids act as antimicrobial and anti-inflammatory. Meanwhile, tannin from areca nut seeds has an astringent effect which functions to minimize wounds. skin tissue so that bleeding can stop and wound healing can occur (Farmasi et al., n.d.).

The mechanism of action of alkaloids is by interfering with the peptidoglycan components in bacterial cells, so that the cell wall layer does not form completely and causes cell death. Flavoloid works by interfering with the activity of transpeptidase, peptidoglycan so that cell wall formation is disrupted and cells will experience lysis. Tannins work by denaturing proteins found in cell walls (Farmasi et al., n.d.).

This research is in line with research conducted by Citra Shauma Ramadhan 2021 regarding the effectiveness of boiled water from young areca nut seeds and kandis acid on pain intensity and perineal wound healing in postpartum mothers on 22 respondents, with a quasi-experimental research type with a pre post test approach with control group design consisting of 11 people as the intervention group and 11 people as the control group. The measuring instruments used were the NRS pain scale (Numerical Rating Scale) and the Souhampton scale and the Bates-Jensen wound continuity scoring. From the Mann-Whitney statistical test, there is a difference between the intervention group and the control group with P value

= 0.000, indicating that boiled water therapy with young betel nuts and kandis acid is effective for treating pain and accelerating the healing of perineal wounds in postpartum mothers. (Citra Shauma Ramadhan, 2021)

This research is in accordance with research conducted by Arief Azis et al in 2022 regarding the activity test of areca nut (*Areca catechu* L.) ethanol extract on the healing of rabbit (*Oryctolagus cuniculus*) incision wounds, using the 70% ethanol solvent extract method by dividing the group into 5 test groups. consisting of 3 test animals. Group I was given Na-CMC as a negative control group, group II was given areca nut ethanol extract with a concentration of 3%, group III was given areca nut ethanol extract with a concentration of 5%, group IV was given areca nut ethanol extract with a concentration of 7%. extract, and group V was given Nebacetin powder as a positive control. The results of the study showed that the group given 7% concentration of areca nut ethanol extract could accelerate wound healing in rabbit incisions with the results of the Anova statistical test obtaining a significance value of $P > 0.05$, namely $0.000 < 0.005$ (Azis et al., 2022).

In this study, the researchers assumed that regular administration of young betel nut simplicia in the right amount could accelerate the healing of perineal wounds in postpartum mothers. In this study, young areca nut simplicia was given twice a day, morning and evening, 400 ml by placing it in the perineal wound of postpartum mothers. . This is because young areca nut seeds contain alkaloid, flavonoid, saponin and tannin compounds which can heal wounds, where alkaloid compounds are efficacious for wound bleeding, saponins and flavonoids act as antimicrobial and anti-inflammatory. Meanwhile, tannin from areca nut seeds has a strong astringent effect. functions to minimize wounds in skin tissue so that bleeding can stop and wound healing can occur.

Young betel nut simplicia is a complementary treatment that can speed up wound healing. Wound healing can be influenced by several factors including the respondent's age and nutrition, where postpartum mothers with perineal wounds are of reproductive age (20-35 years) have cell mechanisms that work more quickly and effectively in wound healing and nutrition to increase the body's immune power. However, the mother's condition must also be healthy, both physically and mentally, which can also determine how long it will take for perineal wounds to heal. This can also be seen from the respondents' adherence to using young areca nut simplicia during the research. Judging from the

respondents in the group who were given young betel nut simplicia in this study, they experienced healing on average on the 4th and 5th day in the fast category and in the normal category healing occurred on day 6, compared to the control group who were not given fruit simplicia. Young areca nut with an average recovery occurs on day 6 and day 7 in the normal category and on day 8 in the slow category.

CONCLUSION

Frequency distribution of the length of healing of perineal wounds in postpartum mothers in the group given young betel nut simplicia in this study experienced faster healing of perineal wounds, where the average healing was >6 days for 9 people (90.0%) precisely on the 4th day and 5th in the fast category and in the normal category 1 person (10.0%) experienced recovery, to be precise on the 6th day, compared to the control group, the average recovery occurred on days 6-7 with 6 people in the normal category (60.0%) people and in the <7 days category with the slow category there were 4 people (40.0%) who experienced recovery on the 8th day. The results of statistical tests using the Mann-Whitney Test were Asymp. Sig (2 T-tailed) 0.000, this value is smaller than the P value (α) 0.005, indicating that there is significant effectiveness in administering young betel nut simplicia in healing perineal wounds in postpartum mothers.

SUGGESTION

It is hoped that the results of this research can provide input and increase the insight of postpartum mothers about young areca nut simplicia and the healing of perineal wounds in postpartum mothers.

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