

Research Article

The Effect of Betel Leaf Decoction and Consumption of Boiled Eggs on Perineal Wound Healing in Postpartum Mothers at Cikukur Health Center in 2022

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Abstract. To find out the effect of boiled betel leaf and boiled egg consumption on perineal wound healing in postpartum women at the Cikukur Health Center in 2022. This type of research used a quasy experiment. The reachable population is 30 pregnant women who meet the inclusion criteria in the working area of the Cikukur Public Health Center. The sampling technique uses the total population method. The statistical test used is multiple linear regression. The results showed that the significant value (Sig) of the betel leaf stew variable was 0.003. Because the value of Sig. 0.003 < probability of 0.05, it can be concluded that H₁ is accepted and H₀ is rejected. This means that there is a significant effect of betel leaf decoction (X₁) on perineal wound healing (Y). These results can be concluded that perineal wound healing in post partum mothers can heal completely within 7 days. It is known that the significance value (Sig) of the boiled egg variable is 0.013. Because the value of Sig. 0.013 < probability of 0.05, it can be concluded that H₁ is accepted and H₀ is rejected. This means that there is a significant effect of boiled eggs (X₁) on perineal wound healing (Y). These results can be concluded that perineal wound healing in post partum mothers can heal completely within 7 days. From the results of this study it can be concluded that perineal wound healing in post partum mothers can heal completely within 7 days. With this research, mothers can increase their knowledge about the effectiveness of betel leaf decoction and boiled eggs, and want to carry out the recommendations of health workers.

Keywords: *Betel Leaf Decoction, Consumption of Boiled Eggs, Perineal Wound.*

A. INTRODUCTION

Women's reproductive health is something that deserves attention, especially during the postpartum period. Health problems in postpartum mothers have impacts that can extend to various aspects of life and become one of the parameters of the nation's progress in providing health services to the community related to maternal mortality (MMR) and infant mortality (IMR) (Astuti et al., 2015; Untari et al., 2022; Novelia & Syamsiah, 2022).

Most of the puerperal women during labor often result in rupture of the birth canal, either in primigravidas or multigravidas with a rigid perineum. Most of the occurrence of perineal rupture during labor and treatment is an obstetric problem. Perineal rupture is divided into four levels or degrees. Perineal tears can occur due to spontaneous damage and can also be caused by an episiotomy (Khusniyati et al., 2018; Mutia et al., 2021; de Boer et al., 2012).

The dangers and complications that occur perineal rupture include bleeding, infection and dysparenia (pain during sexual intercourse). Perineal rupture bleeding will be profuse especially in second and third degree tears or if the perineal tear extends to the side or up into the vulva to affect the clitoris (Yani, 2016; Muslichah et al., 2021). Perineal rupture will easily be contaminated with feces because it is close to the anus. Infection occurs if the perineal ruptures cannot unite immediately resulting in scar tissue. Scar tissue that forms after perineal

lacerations can cause pain during intercourse (Fitri, Aprina, & Setiawati, 2019; Tariq et al., 2018).

Things that need to be considered to prevent contamination with the rectum, handle the injured tissue gently, clean the blood which is a source of infection and odor. If you don't do proper personal hygiene, there is a risk of causing post partum infections due to perineal injuries, lacerations in the genital tract including the perineum, vaginal wall and cervix (Tulas et al., 2017; Karimah et al., 2019).

One way to prevent infection from perineal wounds is to use an antiseptic. Indonesian people still treat perineal wounds using traditional methods, one of which is by using betel leaf boiled water to clean their genitals so that the perineal wound heals quickly and the smell of blood does not come out fishy. Betel leaf is classified as a plant that has many herbal therapeutic effects (Angriani & Lamdayani, 2018; Thasanoh, 2010).

Among the ingredients of betel leaf are essential oils, hydroxycavicol, cavibetol, kavicol, allylpyrokatekol, cyneole, caryophyllene, cadinene, estragol, terpenena, sesquiterpene, phenylpropane, tannins, diastase, starch and sugar. Among these ingredients, betel leaf has an antibiotic effect, based on this therapeutic effect, betel leaf can also be used as an ingredient for wound care which is usually used by wiping and soaking, things like this have become a tradition for mothers after giving birth (Anggeriani & Lamdayani, 2018; Darulis et al., 2021).

Perineal wounds in the wound healing process need adequate nutrition. The role of nutrition in wound healing is the most important aspect in the prevention and treatment of wounds. The types of nutrients needed, namely protein, zinc, iron and vitamins A and C are important elements in structural processes such as collagen synthesis and strengthening revitalization. The need for protein that is really needed in the process of healing perineal wounds is egg white or albumin (Santy & Putri, 2020).

Boiled eggs contain choline which has the effect of repairing damaged cells in the body so that new and healthy tissues can more easily form to replace worn out tissues. Because of that protein is referred to as a building element or substance in the body (Goddess, 2019).

Betel leaves contain essential oils, bethelpanol, sskulterpen, chavicol, hidriksivaikal, cavibetol, eugenol, estrogen and karvarool, chemicals in betel leaves have the power to kill germs and fungi as well as antioxidants which accelerate wound healing. Treatment with betel leaf boiled water is a traditional treatment using certain and natural herbal ingredients so that there are no side effects as often occur in chemical treatment (Sari, 2017).

B. METHOD

Penelitian ini menggunakan metode analisis regresi linier berganda yang terdiri dari dua variabel bebas (independent) yaitu rebusan daun sirih (X1), telur rebus (X2), sedangkan variabel terikatnya (dependent) adalah penyembuhan luka perineum (Y). Alat ukur penelitian menggunakan lembar observasi yang berisi tentang kriteria penyembuhan luka. Teknik pengambilan sampel yang digunakan adalah total population yaitu cara pemilihan sampel dimana diambil dari seluruh anggota populasi yang berjumlah 30 orang. Jenis data yang digunakan dalam penelitian ini adalah data primer berupa data observasi penyembuhan luka perineum ibu nifas serta daftar checklist penggunaan rebusan daun sirih dan konsumsi telur rebus. Analisis univariat dilakukan terhadap tiap variable dari hasil penelitian (Notoatmodjo 2012). Analisis satu variabel digunakan untuk menggambarkan variabel bebas dan variabel terikat yang disajikan dalam bentuk distribusi frekuensi.

Bivariate analysis was carried out on two variables that were thought to be related or correlated (Notoatmodjo, 2012). Bivariate analysis was conducted to find out whether there are differences in the effectiveness of betel leaf decoction and boiled egg consumption in healing

perineal wounds in postpartum mothers. Bivariate analysis aimed to analyze the differences in the effectiveness of betel leaf decoction and consumption of boiled eggs on perineal wound healing in postpartum mothers. The type of data is ordinal scale, which means that the data is non-parametric so that it uses a Multiple Linear Regression test with interpretation of the results if P value < 0.05 then H_0 is rejected H_a is accepted with a confidence level of 95% which means there is a difference in the effectiveness of betel leaf decoction with consumption of boiled eggs on healing perineal wounds in postpartum mothers (Notoatmodjo, 2012).

C. RESULT AND DISCUSSION

1. Characteristics of Respondents Who Have Perineal Wounds

Based on the results of research that has been conducted, the majority of 30 mothers aged 25-30 years are 18 people (56.3%), 15 people with high school education (50.0%) and the majority of parity primigravida mothers are 17 people (59.4%). The characteristics of the respondents in this study indicate that the respondents are in reproductive age. Productive age will be in line with a person's behavior in caring for himself and affecting the maturity of his thinking.

In Khasanah's study, et al (2022) also stated that "perineal wound healing is influenced by factors of age, education and parity". Respondents in the group that received the family approach or did not provide the possibility to give boiled betel leaves and consume boiled eggs. According to Azwar (2006) age is a factor that determines a person's maturity in thinking, acting, and learning. Maturity in one's thinking can affect both one's knowledge, attitudes, and practices. This is in accordance with research conducted by Rohmin, et al (2017) entitled "Risk factors that affect the healing time of perineal wounds in post partum mothers, that there is a relationship between age and the occurrence of perineal wounds in postpartum mothers.

Women aged 20-35 years are classified as healthy reproduction (Winkjosastro, 2010). According to Handayani, et al (2015) age is a risk factor that affects the perineal wound healing process. This is because the aging process has an effect on delaying the wound healing process, but there is no actual reduction in the quality of healing. Delayed wound healing in old age is related to delayed T-cell inflammatory response to the wound area due to chemokine production and phagocytosis of macrophages. Increasing age is a risk factor for impaired wound healing.

In addition to the majority of mothers aged 25-30 years, the average mother also has secondary education. Women's adjustment to changing family patterns is facilitated by women's increased education. Secondary education will make it easier for mothers to understand the education provided.

According to Afrilia and Sari (2018) 60% of postpartum mothers do not know about perineal wound care. Mother's knowledge about postpartum care greatly determines the duration of perineal wound healing. When the mother has less knowledge about perineal wound care, health problems can arise. In addition, it can extend wound healing time (Primadona & Susilowati, 2015). Meanwhile, the highest parity of mothers is primipara, that is, mothers who give birth to their babies for the first time. This situation indicates that primiparous women do not have sufficient experience in caring for the perineum, as is the case with research conducted by Dewi, et al (2022) concerning "Relationship between parity and perineal rupture wounds, it turns out that there is a relationship between parity and perineal injuries".

2. Effect of Betel Leaf Decoction (X1) on Perineal Wound Healing (Y)

The results of the research on the effect of betel leaf decoction and boiled egg consumption on perineal wound healing in postpartum women at the Cikukur Health Center in 2022 on the betel leaf stew variable from the SPSS "Coefficients" show that the Significance

value (Sig) is 0.003. Because the value of Sig. 0.003 <probability of 0.05, it can be concluded that H1 is accepted and Ho is rejected. This means that there is a significant effect of betel leaf decoction (X1) on perineal wound healing (Y). These results can be concluded that perineal wound healing in post partum mothers can heal completely within 7 days.

This is supported by the opinion of Wiknjastro (2018) that the average birth canal injury will heal in 6 to 7 days if no infection occurs, or in other words slower than the established average recovery. The chemical composition and chemical properties of betel leaf consisting of hydroxy chavicol, cavibetol, estragol, eugenol, metileugenol, carvacrol have bacteria killing power five times that of ordinary phenol. Chavicol is one of the components contained in betel leaves which can function as an antiseptic. The content of green betel leaf is an essential oil which contains, among others, chavicol and chavibetol, which are compounds that have antiseptic properties. The efficacy of the antiseptic is thought to be closely related to its use as an inhibitor of bacterial growth in wounds (Arifin, 2008 in Celly, 2010).

3. Effect of Boiled Eggs (X1) on Perineal Wound Healing (Y)

The results of the study on the effect of boiled egg consumption on perineal wound healing showed that the significance value (Sig) of the boiled egg variable was 0.013. Because the value of Sig. 0.013 <probability of 0.05, it can be concluded that H1 is accepted and Ho is rejected. This means that there is a significant effect of boiled eggs (X1) on perineal wound healing (Y). These results can be concluded that perineal wound healing in post partum mothers can heal completely within 7 days.

Provision of egg whites that is by way of being given through the boiling process. The egg whites used by the researchers were native chicken eggs because the protein content in native chicken eggs was higher. Research from Trianingsih, et al (2019) also states that there is an effect of consuming boiled eggs on the healing of perineal wounds in postpartum mothers 1-7 days. Protein from eggs is needed as a building agent that forms the body's muscle tissue and accelerates the recovery of stitches on the perineum or in the birth canal, thirsty network (Walyani, 2015).

Provision of egg whites that is by way of being given through the boiling process. The egg whites used by the researchers were free-range chicken eggs because the protein content in free-range chicken eggs is higher. This egg white is safe for consumption by postpartum mothers who have perineal sutures because the effect of this protein is very helpful in rebuilding damaged tissue cells.

Eggs are one of the most widely consumed sources of animal protein. One of them is boiled eggs and the benefits of boiled eggs are very good for the health of the body. Eggs have a lot of healthful nutritional content. This egg white is safe for consumption by postpartum mothers who have perineal sutures because the effect of this protein is very helpful in rebuilding damaged tissue cells. Boiled eggs contain choline which has the effect of repairing damaged body cells so that new and healthy tissue can be formed more easily to replace damaged tissue. Because of that protein is referred to as an element or a building block.

D. CONCLUSION

Based on the results of the study, the researchers concluded that there was a significant effect between betel leaf decoction and consumption of boiled eggs on perineal wound healing. Therefore it can be concluded that perineal wound healing in postpartum mothers can heal completely within 7 days. Therefore, it is important to inform and apply that betel leaf decoction and consumption of boiled eggs is one of the non-pharmacological interventions to help recover the mother's perineal wound after giving birth in various health care settings both in hospitals, clinics, health centers and in the community.

REFERENCES

1. Afrilia, E. M., & Sari, H. (2018). Hubungan Pengetahuan Ibu Nifas Tentang Perawatan Luka Perineum dengan Proses Penyembuhan Luka Ruptur Perineum di Puskesmas Pakuhaji Kabupaten Tangerang. *IMJ (Indonesian Midwifery Journal)*, 1(2).
2. Amalia, L., & Herawati, E. (2018). Hubungan Pengetahuan dan Sikap dalam Pelaksanaan Perawatan Metode Kangguru. *Jurnal Pendidikan Keperawatan Indonesia*, 4(2), 152-161.
3. Anggeriani, R., & Lamdayani, R. (2018). Efektifitas Pemberian Air Daun Sirih (Piper Betle L) terhadap Kecepatan Penyembuhan Luka Perineum pada Ibu Post Partum. *Babul Ilmi Jurnal Ilmiah Multi Science Kesehatan*, 9(1).
4. Azhari, A. R., Kusumayati, A., & Hermawati, E. (2022). Studi Faktor Iklim dan Kasus TB Di Kabupaten Serang, Provinsi Banten. *HIGEIA (Journal of Public Health Research and Development)*, 6(1).
5. Darulis, N. O., Kundaryanti, R., & Novelia, S. (2021). The Effect of Betel Leaf Water Decoction on Perineal Wound Healing among Post Partum Women. *Nursing and Health Sciences Journal (NHSJ)*, 1(2), 130-135.
6. de Boer, H. J., Lamxay, V., & Björk, L. (2012). Comparing Medicinal Plant Knowledge using Similarity Indices: A Case of the Brou, Saek and Kry in Lao PDR. *Journal of Ethnopharmacology*, 141(1), 481-500.
7. Dewi, I., Rosyid, F. N., Ma'rifah, U., ST, S., & Nur Mukarromah, S. K. M. (2020). Hubungan Antara Paritas dengan Kejadian Rupture Perineum pada Ibu Bersalin di BPS Hj. Farida Hajri Amd. Keb. Surabaya. *Jurnal Ilmiah Kebidanan (SINAR)*, 38-45.
8. Handayani, S., Kapota, W. N., & Oktavianto, E. (2019). Hubungan Status ASI Eksklusif dengan Kejadian Stunting pada Batita Usia 24-36 Bulan di Desa Watugajah Kabupaten Gunungkidul. *Jurnal Medika Respati*, 14(4), 287-300.
9. Karimah, N., Khafidhoh, N., Hardjanti, T. S., & Hakim, R. I. (2019). The Period of Perineal Wound Healing in Postpartum Mothers between the Decoction Water Treatments of Bihanong Leaves with Red Betel Leaves. *GHMJ (Global Health Management Journal)*, 3(3), 107-116.
10. Khasanah, Y. Y., Dini, A. Y. R., Hakim, A. R., & Saputri, W. A. (2022). Hubungan Pengetahuan Ibu Nifas tentang Perawatan Luka Perineum dengan Penyembuhan Luka Perineum. *Indonesian Health Journal*, 1(1), 9-14.
11. Muslichah, S., Azrianingsih, R., Indriyani, S., & Arumingtyas, E. L. (2021). Ethnobotanical Study of Postnatal Medicinal Plants in the Ethnic Madurese in Bangkalan Regency, East Java, Indonesia. *Indian Journal of Forensic Medicine & Toxicology*, 15(3).
12. Mutia, W. O. N., Usman, A. N., Jaqin, N., Rahman, L., & Ahmad, M. (2021). Potency of Complemeter Therapy to the Healing Process of Perineal Wound; Turmeric (*Curcuma longa* Linn) Infusa. *Gaceta Sanitaria*, 35, S322-S326.
13. Notoatmodjo, S. (2012). *Metodologi Penelitian Kesehatan*. Jakarta: Rineka Cipta. 2004. *Metodologi Penelitian Kesehatan*. Jakarta: Rhineka Cipta.
14. Novelia, S., & Syamsiah, S. (2022). Post Caesarean Section Wound Healing among Postpartum Women who Consumed Boiled Eggs. *Nursing and Health Sciences Journal (NHSJ)*, 2(2), 154-158.
15. Rita, D. P. (2021). *Implementasi Metode Ruqyah dan Mandi Malam bagi Penyalahgunaan Narkotika di Yayasan An-Nur Haji Supono Bungkanel Purbalingga* (Doctoral dissertation, IAIN Purwokerto).
16. Rohmin, A., Octariani, B., & Jania, M. (2017). Faktor Risiko yang Mempengaruhi Lama Penyembuhan Luka Perineum pada Ibu Post Partum. *Jurnal Kesehatan*, 8(3), 449-454

17. Sari, Y. (2017). Perbandingan Antara Penyembuhan Luka Perineum yang Menggunakan Air Rebusan Daun Sirih dan Yang Tidak Menggunakan Air Rebusan Daun Sirih Di BPM Lismarini Tahun 2016. *Cendekia Medika: Jurnal Stikes Al-Maarif Baturaja*, 2(2), 77-87.
18. Silitonga, J. M., & Laela, S. (2022). Pelatihan dan Pendampingan Kader tentang ASI Eksklusif dan Cara Menyusui yang Tepat di Puskesmas Kelurahan Cipinang Besar Utara, Jakarta Timur. *Jurnal Kreativitas Pengabdian Kepada Masyarakat (PKM)*, 5(10), 3690-3696.
19. Tariq, A., Adnan, M., Iqbal, A., Sadia, S., Fan, Y., Nazar, A., & Khan, A. L. (2018). Ethnopharmacology and Toxicology of Pakistani Medicinal Plants Used to Treat Gynecological Complaints and Sexually Transmitted Infections. *South African Journal of Botany*, 114, 132-149.
20. Thasanoh, P. (2010). *Northeast Thai Women's Experiences in Following Traditional Postpartum Practices*. University of California, San Francisco.
21. Trianingsih, I., Yenie, H., & SP, S. F. (2019). Pengaruh Telur Rebus terhadap Percepatan Penyembuhan Luka Perineum pada Ibu Nifas 1-7 Hari. *Jurnal Ilmiah Keperawatan Sai Betik*, 14(2), 215-218.
22. Untari, Y. D., Yantina, Y., Susilawati, S., & Sari, D. Y. (2022). Washing Water Red Betel Leaves in Acceling the Healing of Postpartum Women's Perineum. *Jurnal Kebidanan Malahayati*, 8(2), 478-484.
23. Walyani, S., & Purwoastuti, E. (2015). *Asuhan Kebidanan Masa Nifas & Menyusui*. Pustaka Baru Press
24. Wiknjosastro, H. (2018). *Ilmu kebidanan*. Jakarta: Yayasan Bina Pustaka Sarwono Prawihardjo.
25. Wiknjosastro, H., Affandi, B., & Waspodo, D. (2010). Buku Panduan Praktis Pelayanan Kesehatan Maternal dan Neonatal. *Jakarta: Yayasan Bina Pustaka Sarwono Prawirohardjo*.
26. Yani, W. (2016, November). Relationship of Attitude about Premarital Pregnancy and the Incidence of Premarital Pregnancies in Kulon Progo 2015. In *proceeding book the 3rd International Conference on Health Science 2016 "Optimizing the Mental Health under SDGs"*. (Vol. 3, pp. 10-14). Health Polytechnic of Health Ministry Yogyakarta.
27. Yuliaswati, E. (2018). Upaya Mempercepat Penyembuhan Luka Perineum melalui Penggunaan Air Rebusan Sirih Hijau. *IJMS-Indonesian Journal on Medical Science*, 5(1).