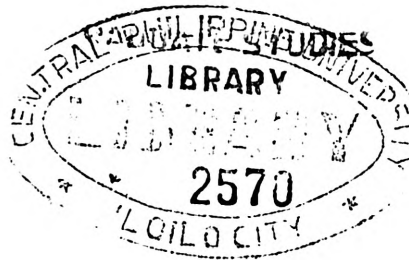


**THE EFFECTS OF GUAVA LEAVES DECOCTION IN THE HEALING OF  
EPISIORRHAPHY WOUNDS AMONG THE POSTPARTUM MOTHERS  
ADMITTED AT WESTERN VISAYAS MEDICAL CENTER  
OB-LYING IN WARD FROM FEBRUARY-MARCH 2004**



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**ABSTRACT**

**Background and Rationale**

Complications during childbirth cause the deaths of half a million women every year; the vast majority in the developing countries like the Philippines. Many women suffer the debilitating consequences of ill health-a result of poorly managed pregnancies and deliveries. One of the major causes of maternal death is postpartum hemorrhage and among the major causes of postpartum hemorrhage, the second top leading, are lacerations whether perineal, cervical or vaginal ([www.doh.gov.ph](http://www.doh.gov.ph)). These lacerations may be at risk for infections and could possibly lead to maternal deaths if not properly taken care of through proper perineal care and washing. Infections of the lacerated or episiotomy wounds may occur and could lead to maternal deaths.

In response to the maternal problems faced by the women of reproductive age, the World Health Organization (WHO) had launched the Global Safe Motherhood in Kenya in 1987. Its purpose was to draw attention to the dimension and consequences of poor maternal health in developing countries and to mobilize actions to address the high rates of deaths and disability caused by the complications of pregnancy and childbirth. The

goal of the program set was to reduce the maternal mortality by half by the year 2000 ([www.doh.gov.ph](http://www.doh.gov.ph)).

The Philippines, following the Safe Motherhood Initiative, also launched its Safe Motherhood Program in 1988, with the aim and view of reducing maternal mortality. This is in addition to the primary health care programs it is implementing. The Philippines also promotes indigenous ways of dealing with the health problems of the women in its comprehensive Maternity Program, utilizing traditional health approaches, like the use of common herbal medicines in the treatment of common ailments. This is to make health care affordable and cheaper to the less privileged citizens. Recently, the Department of Health [DOH] released the 2003 maternal and child updates and it was noted that despite the campaign for safe motherhood, there is still an increasing number of maternal deaths attributed to childbearing. This is a signal to reassess the maternal and child program of the government.

In 2002, the Western Visayas Medical Center in Region VI attended to 2,316 cases of lacerations as a result of childbirth and the majority of these cases ended in wound infections. In the first quarter of the year 2003, there were 1,146-recorded cases of lacerations which is higher than that of the first two quarters of 2002.

The hospital has adopted the usual way of doing the perineal care such as the use of Brand X solution (Lactobacilli), since the normal bacterial flora “doderleins bacillus”, which protects the vagina from infections containing of lactoserum.

The resident doctors and consultants have always prescribed Brand X feminine wash for perineal care of postpartum women. It was observed that this feminine wash facilitates involution and healing of perineal wounds. One of its drawbacks, however, is

that the solution is so expensive that most lower class and middle class women cannot afford to buy it. There is an alternative medicine or traditional medicine encouraged by the government for underprivileged citizens especially to those who live in the rural areas – the use of guava leaves concoction. Residents from private and government hospitals, nurses assigned in Delivery Room (DR) and Obstetric Lying in (OBL) and also nurses who have also delivered babies had reported the use of guava leaves decoction for perineal wash. According to one of the senior residents in Obstetrics-Gynecology department of Western Visayas Medical Center, several patients who had used guava leaves decoction as perineal wash after episiorrhaphy came in for follow-up check after 7-9 days postpartum and they noted that their episiorrhaphy wounds have completely healed. Through home deliveries attended by trained “*hilots*”, women reported the use of guava leaves decoction and found good healing effects. In fact, the practice has been done long before, but no study has been done yet to validate these self-reported effects of guava leaves decoction.

There are documented studies about the antiseptic effects of guava but these did not really focus on its use in perineal care, but rather on other wounds involving other parts of the body. Studies have also shown that guava leaf is effective antiseptic for healing of wounds, however it has not been documented, if it is used in hospital. There were reported cases of women who have used the guava leaves decoction as perineal wash like in one of the regions in Cordillera; however its effectiveness was not scientifically documented specifically on its effects on the healing of perineal lacerations and episiorrhaphy.

Young generation of women may not use guavas leaves because it is not readily available since it has to be boiled and prepared first before using. Probably, there are also doubts regarding its effectiveness. There are evidences of effectiveness of guava leaves concoction, but these have not been properly documented also. Effectivity of guava leaves is as popular as other solutions, like Brand X solution, which has been proven effective through clinical research. The researcher was prompted to conduct this study because as far as the literature review is concerned, there is still a dearth of information on the effectiveness of guava leaves decoction in the healing of episiorrhaphy wounds. It is hoped that through this study, the researcher could generate data on the antiseptic effectiveness of guava leaves decoction. If found to be effective, it can be promoted for use in the community and homes even if it is not used in the hospital setting yet.

### **Summary**

This is an experimental study on the effects of the use of guava leaves decoction in the healing of episiorrhaphy wounds among the postpartum mothers admitted in OB-Lying in ward at Western Visayas Medical Center. This study primarily aims to determine and compare the effects of guava leaves decoction and Brand X solution in the healing of episiorrhaphy wound among the target respondents of the study. Specifically, this study also sought to determine if there is an existing difference in the effects of guava leaves decoction and Brand X solution to the healing of episiorrhaphy wounds in terms of the number of days until the wound completely heals presence of post-operative pain, and phase or intention of wound healing.

It was hypothesized that there is no significant differences in the effects of guava leaves decoction and Brand X solution in terms of the number of days the episiorrhaphy wound completely healed, presence of post-operative pain, and phase or intention of wound healing.

This investigation made use of true experimental study design specifically the post-test only control group. This design was used to explore the effects of a phenomenon after an intervention is applied. In this study, after the application of guava leaves decoction and Brand X solution, the effects was determined through three parameters of healing namely, the number of days episiorrhaphy completely healed, presence of post-operative pain in the incision site, and the phase/intention of wound healing. The respondents of this study were randomly assigned into experimental (treatment group =15 respondents to whom guava leaves decoction was used as perineal wash) and control group (14 respondents whom Brand X solution was used as perineal wash). The wounds were observed on a daily basis until the 14<sup>th</sup> day post-operative period. The judgment and evaluation of an expert consultant in obstetrics and gynecology was used in evaluating the three parameters mentioned. Necessary permission and informed consent were secured before the application and treatment for perineal wash.

In order to test the hypothesis of the study, the t-test for two independent sample means and the t-test of proportions were utilized. The level of significance of this study's statistical treatments was set at 5 percent level. Supplementary statistical tools such as measures of central tendencies, variability, and other descriptive statistics were also employed to facilitate description and explanation of the univariate data of the study:

## **Summary of Findings**

- 1.) The respondents of this study in general, are young primigravidas their mean age being 24.5 years old. The experiment group ages almost approximate that of the control group with their mean ages being 25.5 years and 23.5 years respectively. On the average, the women are highly educated and the most frequent educational attainment being college level. They are mostly primipara and first degree level of episiotomy.
- 2.) In terms of the number of days the wound completely healed, the episiorrhaphy wound of women washed with guava leaves decoction healed earlier/faster compared to those women whose episiorrhaphy wounds were washed with ordinary Brand X solution (experimental group mean=5.53 days vs. control group mean=10.73 days). The difference in the mean number of days the episiorrhaphy wound completely healed between the experimental and control group is significant as confirmed by t-value of 3.94 which is significant at 5 percent level.
- 3.) There were fewer mothers whose wounds were washed with guava leaves decoction who experienced pain than women whose episiorrhaphy were washed with ordinary Brand X solution. In terms of the average number of days the women experienced pain after episiorrhaphy, the experimental group experienced pain in less number of days as compared to the control group (0.4 days < 4.66 days respectively). This means that the mother whose episiorrhaphy wounds had been washed with guava leaves decoction tended to experience lesser pain than those postpartum mothers whose episiorrhaphy wounds were washed with Brand



X solution. This is evidenced by the t-test value of 3.25 which revealed a significant difference between the two means at 5 percent level.

- 4.) Healing occurs in primary, secondary and tertiary intention. This study revealed that the experimental group had all primary intention healing for their episiorrhaphy wounds which were washed by guava leaves decoction while only two thirds of the control group had primary intention healing and the remaining had secondary intention with their episiorrhaphy wounds were washed with Brand X solution. There is significantly higher proportion of experimental group than control group that had primary wound healing as confirmed by t-test value of 6.67 which is significant at 5 percent level.
- 5.) In summary, postpartum women whose episiorrhaphy wounds were washed by guava leaves decoction tended to heal faster/earlier, had experienced lesser pain, and the wounds tended to heal at first intention or primary wound healing as compared to those postpartum mothers whose wounds were washed by Brand X solution which tended to heal at a longer time. They experienced longer period of pain and their wounds may not heal at all during the primary or first intention healing.

### **Conclusions**

Based on the significant findings and hypothesis of the study, the following conclusions/inferences and generalizations were derived by the researcher:

- 1.) There is a significant difference in the number of days the episiorrhaphy wound completely healed between the postpartum mothers who used guava leaves decoction as perineal wash and postpartum mothers who used Brand X



solution as perineal wash. The episiorrhaphy wound of women which were washed with guava leaves decoction tended to heal faster or earlier than episiorrhaphy wounds of women which were washed with ordinary Brand X solution.

- 2.) There is a significant difference in the number of days post-operative pain is felt in episiorrhaphy wound between postpartum mothers who used Brand X solution as perineal wash. Women whose episiorrhaphy wounds were washed with guava leaves decoction tended to report lesser pain experience than those women whose episiorrhaphy wounds were washed with ordinary Brand X solution.
- 3.) There is a significant difference in the phase/intention of wounds healing of episiorrhaphy wounds at the end of 14 days between postpartum mothers whose episiorrhaphy wounds were washed with guava leaves decoction and postpartum mothers whose episiorrhaphy wound were washed with Brand X solution. The episiorrhaphy wounds of women who used guava leaves decoction as perineal wash tended to heal by 1st intention compared to those episiorrhaphy wounds washed with Brand X solution. In other words, there were significantly more women whose episiorrhaphy wounds were washed with guava leaves decoction who had first or primary intention wound healing compared to those women whose episiorrhaphy wounds were washed by Brand X solution.
- 4.) This study further supports and establishes the fact that guava had antiseptic, antimicrobial and analgesic effect. The flavonoids content of guava leaves

facilitates healing by lessening pain, swelling and inflammation. The vitamin content of guava such as Vitamin A and C facilitates tissue repair and shield the cell against the invasion of microorganisms by increasing collagen resistance.

- 5.) The Brazilian research mentioned supra and the study made by Madiloc et al. was further complimented and supported by the findings of this study which revealed that guava has antiseptic and analgesic effect.

### **Recommendations**

Anchored on the significant findings and conclusions of this study the researcher offers the following suggestions and recommendations;

- 1.) The researcher recommends to the postpartum mothers with episiorrhaphy and repair of perineal lacerations (perineorrhaphy) to consider the use of guava leaves decoction as an alternative perineal wash since this study concluded that guava leaves decoction would increase the healing rate of episiorrhaphy wounds. Also it decreases or lessens post-operative pain in wound site and facilitate first or primary intention wound healing.

- 2.) The researcher also suggests to the health care team, the doctors, nurses, midwives, etc. to offer an alternative medicine such as guava leaves decoction aside from Brand X or any commercial perineal wash solution when prescribing perineal wash to post-episiorrhaphy women most especially if the women cannot afford these commercial products. They should not discount the effectiveness of guava leaves decoction in the healing of episiorrhaphy wounds.

3.) The Department of Health and other non-government health organizations should strengthen their promotion and campaign on the use of indigenous resources or herbal medicines in the treatment of illnesses and should motivate more people to use traditional medicines such as the use of guava leaves decoction as complimentary approach to conventional medicine in order to offer cost-effective health care and affordable relief or remedies for ailments.

4.) The Department of Science and Technology and other concerned government agencies should consider the thrust of producing commercial perineal wash or solution made of guava or guava leaves and then help promote the product in order to help those unprivileged segment of the population who cannot afford to buy expensive existing commercial perineal wash or solution.

5.) Future studies may be conducted considering the other medicinal uses of guava and guava leaves not only for the healing of perineal wounds but also of other wounds of the body. And studies to further explore other avenues by which guava could be useful to the body may eventually contribute to further medical advancements. A replication of a similar study may be conducted in a wider scale. It could be conducted to further validate and collaborate the findings of this study so as to strengthen policy recommendations and implications.