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**EFFECTS OF GEDI LEAVES STEW ON LABOR AND  
DELIVERY IN PREGNANT WOMEN**

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**ABSTRACT**

Pain is a natural process in labor, but if not addressed properly, it will cause other problems, such as increased anxiety due to a lack of knowledge. In the first stage of labor and delivery, pregnant women usually feel severe pain, because in addition to opening, the cervix is also thinning. Cervical thinning and opening occur because of the contraction.

The purpose of this study is to analyze the effect of Gedi leaves stew on labor in pregnant women in Gorua public health center.

This research method is experimental study with Posttest-Only Control Design. The sampling technique in this research is incidental sampling with a sample size of 10 women who were then divided into the experimental group of 5 respondents and the control group of 5 respondents.

The statistical test of the experimental group produced a significance value of  $p = 0.016 (<0.05)$ , meaning that there is an effect of Gedi leaves stew on the smooth labor and delivery. Meanwhile, the control group test produced a significance value of  $p = 0.374 (> 0.05)$ , meaning that there is no effect of Gedi leaves stew on the smooth labor and delivery.

From these results, it can be concluded that Gedi leaves was influential in the smooth delivery process because they contain several chemical compounds such as amino acids (tryptophan, lysine), flavonoids, iron, vitamin A, vitamin B6, and vitamin C.

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## INTRODUCTION

In the past, most people use herbs for traditional or economic reasons of not being able to afford to pay doctors' services. The reason now seems to be shifting. People are increasingly utilizing herbs as treatment after realizing the efficacy and safety of herbs. Herbal treatments have lower side effects than chemical drugs. China's traditional society considers food as the cause of the disease, so it is expected that herbal medicines are becoming more popular, not only in Indonesia but also in other countries which undertake research on their efficacy. Gedi is consumed as vegetables, sometimes even as the main vegetables, by people in the eastern part of Indonesia, especially in Halmahera, North Maluku. Gedi (*Jathopra Multifoda L.*) is easily obtained and inexpensive, especially in a tropical climate like Indonesia. For hundreds of years in Halmahera, village shamans and midwives have believed that Gedi can assist delivery process. Pregnant women in the third trimester who already feel the pain of upcoming delivery are given two glasses of Gedi leaves stew in the morning and evening. In addition, this treatment is also given to treat constipation. This practice has been continuing to this day, especially in villages in Halmahera, North Maluku.

Normal labor and birth are fetus-delivery processes that occur in the pregnancy of 37 weeks up to 42 weeks gestation. The fetus is born spontaneously starting with the back of its head, which happens within 18 hours without complications in both the mother and fetus (Syaifuddin, 2008).

Labor pain is pain that is experienced by all women giving birth, but the pain varies from one individual to another. For primiparas, childbirth pain level is often more severe than that of multipara because in multipara the effacement process is in conjunction with cervical dilation. In primiparas, the effacement process usually occurs earlier than the cervical dilatation (Yuliatun, 2008).

In Indonesia, Muhiman in Ningrum (2009) states that 90% of births is accompanied by pain, although it has now been found that about 7-14% of childbirth is without pain. Preliminary studies conducted by researchers at the *Puskesmas* (Public Health Center) Gorua, North Halmahera showed that, in 2016, of 10 women giving birth, six (60%) felt severe pain during labor at the opening of 5 cm, and four (40%) experienced only mild pain.

Pain is a natural process in labor, but if not addressed properly, it will cause other problems, such as increased anxiety due to a lack of knowledge and lack of

experience of the mothers during childbirth causing increased adrenal hormone production. In the first stage of labor and delivery, pregnant women usually feel severe pain, because in addition to opening, the cervix is also thinning. Cervical thinning and opening occur because of the contraction. (Yanti, 2010). The mothers will feel pain in their lower abdomen and spread to the lumbar spine and down to the thigh.

Gedi, *Hibiscus manihot L* or *Abelmoschus manihot*, is also known by the name of Yondok. Apart from Indonesia, Gedi is also known in other countries, such as *Lagikuway* in the Philippines, *Po fai* in Thailand, and its common name is *Edible hibiscus*. Gedi is a plant that normally becomes vegetables in Manado porridge. This plant is also often found in Papua.

Gedi's flowers are relatively large, about 4-8 cm in diameter. The flowers are yellow lidded and have stamens. They are also occasionally used as or mixed into salad or other foods. The large flowers can indicate that the plant is a plant that is nutritious and high in protein.

Gedi is a nonpharmacological method to relieve pain during labor and delivery (Med forth, 2011). One of non-pharmacological methods to treat pain effectively is Gedi leaves stew. Midwives can directly provide the treatment or teach the mothers' family so that the intensity of pain during delivery can be reduced.

## METHODS

This research is an experimental research with *Posttest-Only Control Design*. Two groups are selected randomly (R). The first group, or the experimental group, coded as respondents (1) was treated (X), while the other group, or the control group, coded as respondents (2) was not. After being given the treatment and observed, the results are analyzed with univariate and bivariate analyses, using *T-test* and *Paired Sample T-Test* in SPSS version 23, which was then proved with  $p\text{-value} = <0.05$  to show that there was an effect of Gedi leaves stew on the smooth labor and delivery. Conversely, if  $p\text{-value} = > 0.05$ , there was no effect of Gedi leaves stew on the smooth labor and delivery.

## SAMPLE

The sampling technique in this research is incidental sampling, a technique that is based on chance, that is anyone who by chance / incidentally met with researchers can be used as a sample, when these people are suitable or appropriate as data sources. The samples

in this study were 10 mothers who were then divided into the experimental group of 5 respondents and the control group of 5 respondents.

## RESULTS

The study was conducted in Puskesmas Gorua in June 2016. The materials used are Gedi leaves stew given to women giving births. Univariate analysis aims to explain or describe the characteristics of each of the variables by looking at the percentage. Two respondents (20%) aged 20 years, three respondents (30%) aged 21-25 years, and five respondents (50%) aged > 26 years.

The bivariate analysis was conducted to determine the form of the relationship between the two variables (the independent and dependent), whether these variables have a significant influence or only incidental influence. This analysis aims to determine differences in the delivery smoothness between women who were given Gedi leaves stew and those who were not.

**Table 1.** Statistical Test Results of the Experimental Group

Paired Samples Statistics							
		Mean	N	Std. Deviation	Std. Error Mean		
Pair 1	Pre_Test	1.20	5	.447	.200		
	Post_Test	2.00	5	.000	.000		

  

Paired Samples Correlations			
Pair	Pre_Test & Post_Test	N	Correlation
1		5	.

  

Paired Samples Test									
Paired Differences									
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		T	d	Sig. (2-tailed)
					Lower	Upper			
Pair 1	Pre_Test - Post_Test	-.800	.447	.200	-1.355	-.245	4.000	4	.016

**Table 2.** Statistical Test Results of the Control Group

Paired Samples Statistics							
		Mean	N	Std. Deviation	Std. Error Mean		
Pair 1	Pre_Test	2.00	5	.000	.000		
	Post_Test	1.80	5	.447	.200		

  

Paired Samples Correlations			
Pair	Pre_Test & Post_Test	N	Correlation
1		5	.

  

Paired Samples Test									
Paired Differences									
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	d	Sig. (2-tailed)
					Lower	Upper			
Pair 1	Pre_Test - Post_Test	.200	.447	.200	-.355	.755	1.000	4	.374

The statistical test of the experimental group produced a significance value of  $p = 0.016$  ( $< 0.05$ ), meaning that there is an effect of Gedi leaves stew on the smooth labor and delivery. Meanwhile, the control group test produced a significance value of  $p = 0.374$  ( $> 0.05$ ), meaning that there is no effect of Gedi leaves stew on the smooth labor and delivery.

## DISCUSSION

Childbirth is the process of delivering the conception products (fetus and placenta) that has matured and can live outside the uterus spontaneously through the vagina (Manuaba, 2005). At the end of pregnancy, the uterus becomes progressively more sensitive to finally strong rhythmic contractions emerge so that the baby is born. The second stage of labor is the stage in which the fetus is born. In the second stage, the contractions are becoming stronger and faster, about 2 to 3 minutes. When the head of the fetus has entered the pelvis, pressures are felt on the muscles of the pelvic floor, which instinctively cause a sense of straining. Women feel the pressure in the rectum, and pain during labor and delivery.

Gedi is a medicinal plant that has important values to local needs and global interests. The leaves contain ethanol extracts, which contain anticonvulsant and antidepressant properties. Gedi itself is demulcent and can facilitate delivery.

Gedi leaves are rich in protein and contain vitamin A, vitamin C (Riboflavin, Thiamine and Minerals), Iron, Potassium and Calcium. They also contain folic acid, which is good for strengthening the fetus and helping fetal development during pregnancy because pregnant women often experience megaloblastic anemia caused by folic acid deficiency. Gedi leaves as can also enhance stamina. A mother who is experiencing nutrient deficiency because of fatigue can consume Gedi to restore the health.

In the Caribbean countries, Gedi leaves are believed to be able to overcome the female reproductive problems because they can regulate blood sugar level in the body. In addition, Gedi leaves are aphrodisiac or can increase sexual arousal. These plants can also improve sexual function in women.

Because Gedi leaves contain folic acid, they are beneficial for breastfeeding women as they can improve the milk quality quantity.

Gedi leaves can also reduce acidosis in pregnant women they are rich sources of calcium and alkali - important elements in keeping the body tissues clean and

maintain alkalinity in the blood (alkaline). Moreover, it can prevent chronic diseases that occur due to too much acid in the body.

If a pregnant woman has pains in the teeth and must reduce the use of chemical drugs that could affect the fetus health, she can instead use Gedi, in the form of juice, because it is effective in strengthening the gums and heal cavities. If the juice is supplemented with carrots, it will cure bleeding gums and ulceration. Chewing the leaves can also maintain gums health.

The Gedi juice will be able to cleanse the digestive tracts and remove digestive waste attached to the intestines so that the bowel movement is rejuvenated, helping to fight constipation in pregnant women.

Gedi is a rich source of iron (Fe), so it is not only effective to treat anemia but also to prevent anemia.

## CONCLUSION

Clinically, it can be stated that labor begins when pain is felt and the vagina excretes mucus with blood. The mucus with blood comes from the cervical canal because cervical mucus began to open. The first stage of labor begins with complete cervical dilation. The second stage of labor is the stage in which the fetus is born. In the second stage, the pain is becoming stronger and faster, about 2 to 3 minutes. The limits and duration of the second stage of labor is different depending on the parity. The duration of the second stage may be longer in women receiving epidural block because it can cause the loss of straining reflexes. In primigravida, the time required is 25-57 minutes. The third stage of labor lasts from fetal to the placenta birth. The fourth stage lasts approximately two hours after the delivery of the placenta.

Gedi is a plant that is usually consumed as vegetables by people in Manado and Papua. On the Pacific islands, this plant is cooked with coconut milk. Generally, in Asia it is sautéed with garlic.

These medicinal plants have important values to local needs and global interests. Gedi's flowers are relatively large, about 4-8 cm in diameter. The flowers are yellow lidded and have stamens. They are also occasionally used as or mixed into salad or other foods. Based on the test results, it can be concluded that Gedi leaves stew has an effect on the smooth labor and

delivery process because it contains several compounds such as amino acids (tryptophan, lysine), flavonoids, iron, vitamin A, vitamin B6, and vitamin C.

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