

Article

Effect of Dates Consumption On Bleeding, Duration, And Types of Labor

*Kuswati¹, Rohmi Handayani²**¹Ministry of Health, Surakarta Health Polytechnic, Department of Midwifery***SUBMISSION TRACK**

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CORRESPONDENCE

Phone: 087863010609
E-mail: sholehkuswati5@gmail.com

A B S T R A C T

Dates are a good source of nutrition for the body if consumed regularly both in the form of dried fruit, wet, as well as in the form of palm juice extracts, especially for pregnant and maternal mothers. Pregnant women who are going to give birth are in desperate need of drinks and foods that are rich in sugar, this is because of the many contractions of the uterine muscles when it comes to removing the baby, especially if it takes a long time. Dates contain potuchin hormone which functions to bind the uterus and muscles of the uterus so that it can help reduce postpartum bleeding. Besides, there is the hormone oxytocin which can help stimulate contractions in the muscles of the uterus so as to facilitate labor. The purpose of this study was to determine the effect of consumption of dates on bleeding, length of labor and type of labor. This type of research is a Pre experiment with a post-test Only Control Group Design research design. The population in this study were all pregnant women in the working area of South Klaten Public Health Center with estimated deliveries from July to September 2018. While the sample size was 60 samples consisting of 30 treatment group respondents and 30 control group respondents. The sampling technique used in this study was Quota sampling. Data analysis using Fisher Exact test and Mann-Whitney U test with p-value considered significant is $p = 0.05$. The results of the study of bleeding showed that there were no significant differences in the estimation of blood loss and during labor and type of delivery between the treatment group and the control group (p -value = 0.5). The results of the study about the length of labor showed that there was an effect of date consumption on the length of labor, with a value of $p = 0,000$.

I. INTRODUCTION

Labor begins with the process of opening and thinning the cervix, and the fetus descends into the birth canal. Birth is the process by which the fetus and amniotic fluid are pushed out through the birth canal (Saifuddin, 2006).

The dynamic process of labor involves four interrelated components that affect both the start and progress of labor. These four components are a passenger (fetus), passage (maternal pelvis), power (uterine contractions), and psychic (maternal emotional status). When labor begins, the interaction between passengers, passage, power, and psychic must be synchronized for the occurrence of spontaneous vaginal birth (Walsh, 2007).

The progress of labor is the most tiring, heavy, and most mothers begin to feel pain or pain, in this phase most mothers feel great pain because the uterine activity begins to be more active. In this phase, adequate power is needed to be able to start labor. The weakening of uterine contractions or inadequate contractions is the most common cause of prolonged labor (Kumarawati, 2010).

Many attempts to streamline contractions (power) include; ambulation techniques, changing position, emptying the bladder, nipple stimulation, and providing nutrition and reducing stressors and maternal fatigue (Kumarawati, 2010). One effort is to provide good nutrition, both given during labor and before delivery. Dates are a good source of nutrition for the body if consumed regularly both in the form of dried fruit, wet, as well as in the form of palm juice extracts, especially for pregnant and maternal mothers. This is stated in the Holy Qur'an, Allah Subhanahu wa Ta'ala ordered Maryam bint Imran to eat dates when she was giving birth because the satiating fruits also made the movements of the uterine contractions more regular, so Maryam easily gave birth to her child. Allah Subhanahu wa Ta'ala said: "And shake the base of the palm tree towards you, surely the tree will abort the dates that cook to you, then eat, drink and have your mercy. If you see a human being, then say, *ungguhnya* Indeed, I have bernadzar fasting for Rabb the Most Gracious, so I will not speak to a human being today." [QS.Maryam : 25-26].

Pregnant women who are going to give birth are in desperate need of drinks and foods that are rich in sugar, this is because of the many contractions of the uterine muscles when it comes to removing the baby, especially if it takes a long time. The content of sugar, vitamin B1, and iron is very helpful to control the rate of movement of the uterus and increase the period of systole (heart contraction when blood is pumped into the arteries). Whereas in the dates, in addition to these two ingredients, there is a content of potuchin hormone which serves to bind the uterus and muscles of the uterus so that it can help reduce postpartum bleeding. In addition, there is the hormone oxytocin which can help stimulate contractions in the muscles of the uterus to facilitate labor. This hormone will also help spur contractions in the veins around the mother's breast, thus spurring the milk glands to produce milk.

Research conducted by Rabbah A.al-Dossari 2017 entitled Effect of Eating dates and Drinking water versus IV Fluids During Labor on Labor and Neonatal Outcomes, with the results that there were significant differences in the treatment group where the second and third times were faster compared to the control group (19 min Vs 27.5 min and 8 min Vs 10 min)

According to WHO data, as many as 99% of maternal deaths due to labor or birth problems occur in developing countries (Joseph, 2010). The old partus in the world causes 8% maternal mortality and 9% in Indonesia. Complications during labor that often occur in Indonesia are postpartum hemorrhage, lagging uri, prolonged labor, and infection. According to the South Klaten Health Center report, there were 429 deliveries from January to December 2017 regardless of parity.

Based on the background above, the researchers are interested in researching "The effect of consumption of dates on bleeding, duration of labor and type of labor".

II. METHODS

The type of this study was experimentation with a post-test only with control group design. The design of this study was not pretested, the treatment group was measured after getting treatment and compared with the control group. The group is considered the same

before treatment. This research was conducted in the working area of the southern Klaten Health Center. The population in this study were all pregnant women in the southern Klaten Health Center area with deliveries from July to September 2018. The sampling technique in this study uses purposive sampling which is sampling based on criteria determined by the researcher. The sample in this study were pregnant women in the Klaten region with 30 treatment group respondents and 30 control group respondents from July to September 2018. The treatment group was 100 grams of pregnant women daily given dates from 37 weeks of gestation to delivery.

III. RESULT

The research was conducted in the Klaten Selatan Community Health Center from July to September 2018. The sample size in the study was 60 people consisting of 30 pregnant women who consumed dates and 30 pregnant women who did not consume dates. Data about pregnant women who consume dates and labor outcomes, namely about bleeding, length of labor and type of labor taken from primary data. While the data of pregnant and maternity women who do not consume dates are taken from secondary data, namely from the Final Report of Students who have carried out ongoing care for pregnant women, maternity and childbirth. The results of this study will present the distribution of respondents' characteristics and the results of statistical analysis of differences in bleeding events, length of labor and type of delivery.

Characteristics of Research Respondents

The following table presents the frequency distribution of the characteristics of the research respondents from the maternal group who consumed dates and did not consume dates during their pregnancy.

Table.1. Characteristics of Respondents

Variable	Consumption of Dates (n=30)	Not Consumption of Dates (n=30)	Significance Test
Age (Mean/SD)	27,97(3,7)	26,9(4,0)	P=0,294 IK 95%(-0,951-3,084)
Obstetrics status N (%)			
G1P0A0	13 (43,3)	13 (43,3)	P= 1.00
G2P1A0	13 (43,3)	13 (43,3)	
G3P2A0	4 (13,3)	4 (13,3)	

P=0,294 : Independent t-test; P= 1.00: Fisher Exact Test

Based on table 1, it is known that the average age of group respondents who consumed dates during the final trimester of pregnancy starting at 37 weeks' gestation was 27.97 years, while those who did not consume dates were 26.9 years. The results of statistical tests of respondents' ages from both groups using the independent t-test p-value = 0.294 ($p > 0.05$). Based on the results of statistical tests it can be concluded that there is no significant difference between the age of respondents between treatment groups (dates consumption) and groups control (not consuming dates)

Based on table 1, the characteristics of respondents based on obstetric status between the two groups can be seen that the two groups have the same proportion, namely the number of respondents with G1P0A0 obstetric status in both groups is 43.3% (13 respondents), G2P1A0

is 43.3% (13 respondents) and G3P2A0 is 13.3% (4 respondents). Based on the results of the statistical test p-value is 1.00, which means that there is no difference in obstetric status between the two groups.

Bleeding, Duration of Labor and Type of Labor in the group of respondents who consumed dates and did not consume dates.

The results of the study on the delivery outcomes of the two groups of respondents consisting of bleeding events, length of labor and type of delivery are presented in the following table.

Table.2 Bleeding, Duration of Childbirth and Types of Labor in the Date Consumption group and Not Consumption of Dates

Variable	Consumption of Dates (n=30)	Not Consumption of Dates (n=30)	Significance Test P-Value
Bleeding N (%)			
< 500 ml	29 (96,7)	28 (93,3)	p=0,5 (FET)
≥ 500 ml	1(3,33)	2 (6,7)	
Duration of Labor (Hour)			
Min-max	4,33-16,00	6,17-24,58	P = 0,000 Z= -3,549
Median	6,98	10	
Types Of Labor N (%)			
Spontaneous	27 (90)	26 (86,7)	p=0,5 (FET)
Action	3 (10)	4 (13,3)	

FET: Fisher Exact Test; Z: Mann Whitney Test

Based on table 2. the results of the study of the incidence of bleeding in the group consuming dates during the final trimester of pregnancy were 1 respondent with an estimated blood loss of ≥ 500 ml and there were 29 respondents with estimates of blood loss during labor < 500 ml. Whereas in the group that did not consume dates during the final trimester of pregnancy there were 2 respondents with estimated blood loss ≥ 500 ml and there were 28 respondents with estimates of blood loss during labor < 500 ml. Based on the results of statistical tests with the Fisher Exact Test to find out the relationship between consumption of dates and the incidence of bleeding, the p-value is 0.5 (> 0.005) which means that there is no significant difference in bleeding between the group consuming dates and not consuming dates. It can be concluded that there is no correlation between consumption of dates and the incidence of the bleeding mother.

The results of the study about the length of labor between mothers who consumed dates and did not consume dates based on table.2 Data obtained about the minimum and maximum length of labor and median. The size of the concentration and dissemination of the data is used because the data is not normally distributed.

Based on the table above, the data about the shortest length of labor in the group of respondents who consumed dates was 4.33 hours while the control group was 6.17 hours. The longest duration of labor in the group consuming dates was 16 hours while in the control group it was 24.58 hours. Based on the results of statistical tests with the Mann Whitney test, the p-value is 0,000, which means that there is a significant relationship between the length of labor between groups consuming dates and those who do not consume dates.

The results of the study on the type of labor were obtained according to table 2, that the type of labor is divided into 2 types, namely spontaneous labor with the labor of action. The number

of spontaneous deliveries in the respondent group who consumed dates was 27 respondents (90%). Whereas in the group not consuming dates there were 26 people from 30 respondents (86.7%). Based on the results of statistical tests with Fisher Exact test, the p-value is 0.5 (> 0.05) which means that there is no significant difference in the type of labor in the group consuming dates and not consuming dates during the final trimester of pregnancy

IV. DISCUSSION

This research was conducted on 60 respondents consisting of 30 respondents who were treated groups, namely pregnant women who were given dates every day with dates as much as 7-9 dates or weighing 100 grams since 37 weeks gestation. While for the control group as many as 30 were groups of pregnant women who did not consume dates during their pregnancy.

Based on the results of research on the characteristics of respondents based on age and obstetric status in the two groups there were no significant differences in age and obstetric status between the two groups of respondents. Thus confounding variables can be minimized, because age and obstetric status influence the bleeding events, duration of labor and type of labor.

Dates have tremendous health benefits for women, especially pregnant and breastfeeding. Studies show that dates contain certain stimulants that strengthen uterine muscles in the last few months of pregnancy. This helps strengthen uterine contractions during labor. Because of the value of dates as food with nutrients and high energy, dates are always recommended for postpartum and breastfeeding women.

Palm fruit is thought to stimulate contractions of the uterine muscles like oxytocin (Al-Kuran et al, 2011). Khadem et al. Conducted a study comparing the effects of dates and oxytocin in preventing postpartum bleeding, and the results of dates have the effect of oxytocin to increase uterine sensitivity and stimulate contractions of the uterine muscles and reduce postpartum hemorrhage (Khadem et al, 2007). Based on the results of research on the incidence of bleeding, it was found that there was no significant difference in the estimation of blood loss between groups consuming dates and groups that did not consume dates. This study is the same as the results of a study by Razali et al in 2017 that there was no significant difference in the estimation of blood loss during labor between groups consuming dates and not consuming dates.

Based on the results of the study of the length of labor calculated from the time of the Latent Phase to the third stage, it was found that there was a significant relationship between consumption of dates and length of labor ($p = 0,000$). Dates or Latin names are *Phoenix dactylifera* which are known to contain high carbohydrates, fats and 15 types of salts and minerals, proteins and vitamins such as riboflavin, thiamin, biotin, folic acid and ascorbic acid which are all essential ingredients needed by the body (Al-Shahib and Marshall, 2003). This research is in line with the research conducted by Dosarri et al. 2017 who conducted the study by comparing the length of labor in the group of women who consumed dates during labor and delivery mothers who gave intravenous fluids. The results showed a significant difference in the duration of labor in the second and third stage of labor in mothers who consumed dates with those who did not consume dates but were given intravenous fluids. The group that consumed dates during the second and third stage of labor was shorter than those who did not consume dates.

Based on the results of the research on the relationship of consumption of dates during the final trimester of pregnancy with the type of labor, the results showed that there was no significant relationship between consumption of dates and type of labor ($p = 0.5$). The type of labor referred to in this study is spontaneous labor and labor with action. Labor with this action in labor is labor with labor induction and cesarean section delivery (SC). Of the 30 respondents who consumed dates, there were 27 respondents with spontaneous labor and 3 deliveries with

actions consisting of 2 with SC and 1 with induction. Whereas in the 30 control group respondents who did not consume dates there were 26 respondents with spontaneous labor and 4 respondents with labor with actions consisting of 2 deliveries with SC and 2 deliveries by induction.

This research is similar to the research conducted by Razali et al. 2017, about the consumption of dates: the effect on gestation, labor, and birth, shows that there is no significant difference in the type of labor between mothers consuming dates and not consuming dates during the final trimester of pregnancy. While according to Al-Kuran et al's research in 2011 showed a significant decrease in the induction of labor in mothers who consumed dates during pregnancy. The RCT study conducted by Kordi showed that women who consumed dates during the final trimester of pregnancy had higher cervical dilatation than those who did not consume dates (Kordi et al. 2011). Besides, by consuming dates can increase the success of labor by induction. Thus in this study there were no significant differences in the type of labor between dates consumption group and not consumption of dates, both groups showed the majority of labor spontaneously because it was seen from the age factor in both groups the average age of healthy reproduction and also in the two groups the majority good so that it has a low risk of complications during labor.

V. CONCLUSIONS

Based on the results of the study it was concluded that there was no significant relationship between bleeding in mothers who consumed dates and those who did not consume dates (p -value = 0.5), there was a significant influence on the length of labor-consuming dates and those without consuming dates. significant between types of labor in mothers who consume dates with those who do not consume dates (p -value = 0.5).

Suggestions based on the results of this study are so that the public, especially pregnant women to consume dates during pregnancy or can start from the last trimester of labor because dates contain a lot of essential nutrients that are needed by the body. For health workers, especially midwives, they promote dates as an additional supplement for pregnant and childbirth mothers. get promotion about formula milk.

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