

# The Effect of Giving Papaya (*Carica Papaya*) on the Smooth Menstruation of High School State 3 Makassar Students: A Case Study

Rika Handayani<sup>1</sup>, Nur Asmi<sup>2</sup>, A. Fatwa Tenri Awaru<sup>3</sup>, Risna Ayu Rahmadani<sup>4</sup>, Nining Ade Ningsih<sup>5</sup>

<sup>1,2,3,4</sup>Faculty of Nursing and Midwifery, Megarezky University, Makassar, Indonesia

<sup>5</sup>Public Health Undergraduate Study Program, STIK Tamalatea Makassar, Indonesia

Corresponding Author: Rika Handayani

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## ABSTRACT

**Background:** Periodic menstruation of blood from the uterus that occurs at more or less regular monthly intervals throughout a woman's active reproductive life is referred to as menstruation. The menstrual cycle and its associated physical and psychological symptoms can often have a negative impact on daily life and activities.[1]

**Destination:** To compare the effect of papaya fruit consumption on menstrual flow to female students in the intervention and control groups.

**Method:** This study used a quasi-experimental design with a control group posttest only design. This research was conducted at SMA Negeri 3 Makassar with the number of respondents as many as 40 teenagers who were divided into 2 groups by giving papaya to the intervention group for 10 days. By using the Chi Square test.

**Results:** Showing significant results with  $p$  value = 0.001 < 0.05 then  $H_a$  is accepted,  $H_o$  is rejected, meaning that there is a difference in the effect of papaya fruit consumption on the smoothness of menstruation for students who are given and not given. From the results of this study, it is hoped that further research will conduct similar research by developing other variables related to menstrual fluency.

**Keywords:** Smooth Menstruation, Papaya Fruit, Intervention

## BACKGROUND

World Health Organization (WHO) states that a body mass index that is above or

below the normal limit is associated with an irregular cycle. The percentage of body mass index of women aged 20-24 years in Indonesia, as follows, thin 18%, normal 68.45%, overweight 6.5%, and obese 7.1%. In Indonesia, women aged 20-24 years who have regular menstrual cycles are 76.7% and 14.4% are irregular, while in East Java Province, 68.3% have regular cycles and 11.6% women with irregular cycles. regularly Depkes RI (2010: 5).

According to WHO (2014) in the world, it is estimated that there are 1.2 billion youth groups or 18% of the world's population. In Indonesia, according to the 2010 Population Census, the number of age group 10-19 years is 43.5 million or about 18% of the total population and in Yogyakarta it is around 68.2%. According to estimates from the Central Statistics Agency (BPS), the percentage of adolescents reached 24.13% with a three times growth (3.24%) compared to population growth (BPS, 2012). According to the National Population and Family Planning Agency, the size of the adolescent population will affect development from social, economic and demographic aspects both now and in the future (BKKBN, 2011).

Menstrual cycle disorders are caused by an imbalance of FSH or LH so that estrogen and progesterone levels are not normal. Usually, menstrual disorders that often

occur are irregular or infrequent menstrual cycles and prolonged or abnormal bleeding, including the side effects it causes, such as abdominal pain, dizziness, nausea or vomiting. Menstrual cycle disorders often occur in adolescents and are caused by several factors including psychological, hormonal disorders, genetics, organic disorders and nutritional status (Samir, et al., 2012).

Adolescence is a transition period of life from childhood to adulthood. Changes will be followed by physical, behavioral, cognitive, biological and emotional changes. According to WHO, the age limit for adolescence occurs at the age of 12-24 years. The world's youth population reaches 1.2 billion or 18% of the world's population. In Indonesia, according to the 2010 Population Census, the population of the 10-19 year age group reached 43.5 million or about 18% of the total population. 2 At puberty, skeletal and sexual maturity will occur rapidly. According to Mons and Knoer (2002) in adolescent girls primary sex signs appear with the development of the uterus and fallopian tubes, vagina, pubic lips and clitoris. The maturation of the egg and the production of the hormone estrogen will cause the appearance of menstruation in the first period called menarche.

Papaya (*Carica papaya* L.) is a plant originating from southern Mexico and northern South America, which has long been widespread and widely planted in tropical areas, including Indonesia. This papaya plant is known as a multipurpose plant because almost all of its parts have benefits for humans and animals, from the roots to the leaves, by using them as food, drinks, medicines, beauty tools and as animal feed. So far, you may often consume papaya because of its unique taste, cheap price and easy to get. But maybe many don't know that consuming papaya unconsciously also makes the body healthy, one of which can help launch menstruation because papaya contains vitamin A and vitamin C which are used as anti-oxidants.

## METHOD

The method used in this research is Quasi Experiment with Posttest Only Control Group Design approach, which is a study in which there are two groups whose samples were selected by purposive sampling. The first group was given treatment and the other group was not. The group that is given treatment is called the experimental group and the group that is not given is called the control group.

## RESULTS

**Table 1. Distribution of Respondents Characteristics Based on Age and Menstruation Status at SMA Negeri 3 Makassar 2019**

Age	Frequency (n=40)	Percentage (%)
14 years	5	12.5
15 years	9	22.5
16 years	13	32.5
17 years	13	32.5
<b>Menstruation Status</b>		
Fluent	21	52.5
Not smooth	19	47.5

Based on table 1 above, it can be seen that the majority of respondents are aged 16 and 1 year, namely 32.5% respectively. Meanwhile, the respondent's age at least is 14 years, which is 12.5%.

**Table 2. Smooth Menstruation of Respondents After Papaya Fruit Intervention for Young Women at SMA Negeri 3 Makassar in 2019**

Given	Menstrual Smoothness				Total	P value
	Fluent	%	Not smooth	%		
Yes	16	76.2	4	21.0	20	
Not	5	23.8	15	78.9	20	0.001
Total	21	100.0	19	100.0	40	

Based on the table above, it can be seen that there is a relationship between the intervention of papaya fruit on the smoothness of the respondent's menstruation with a p value of 0.001.

## DISCUSSION

Periodic bleeding in the uterus that begins about 14 days after ovulation is called Menstruation or menstruation. Menstruation is an event experienced by every woman. A woman who experiences her first menstruation can be used as an indicator that the woman already has a mature reproductive system and is ready to

reproduce or produce offspring.[2]. Normal menstrual function is the result of interactions between the hypothalamus, pituitary, and ovaries with associated changes in target tissues in the normal reproductive tract. The ovaries play an important role in this process, as they appear to be responsible for regulating both cyclical changes and the length of the menstrual cycle[3]. The low level of knowledge in the adolescent group will have an impact on the behavior of young women, so that it has an impact on menstrual irregularities. Several factors that can affect a person's menstrual irregularities include age, mental state, and behavior[4].

Menstrual disorders most often occur at the beginning and end of a person's reproductive period, the initial period of reproduction is around the age of less than 19 years and at the end of reproduction, which is around the age of more than 39 years.[5]. This disorder is related to the length of the menstrual cycle, or the number and duration of menstruation. A woman can experience both disorders. On the other hand, lack of age will hinder the development of one's hormones towards new things. Menstruation is considered normal if it occurs at intervals of 22-35 days (from the first day of menstruation to the start of the next menstrual period) and menstrual bleeding lasts 1-8 days.[6].

The menstrual cycle plays a role in female fertility and reproductive health. But maybe many don't know, that consuming papaya unconsciously also makes the body healthy, one of which can help launch menstruation because papaya contains vitamin A and vitamin C which are used as anti-oxidants, so it is good for the skin and launches menstruation.[7]. Papaya fruit has a substance that can increase heat in the body, so the production of the hormone estrogen will increase and blood circulation will be smooth. In addition, the folic acid in this fruit can maintain tissue health so that menstruation that is not smooth becomes smooth. Changes in the length and length of the menstrual cycle reflect changes in the

production of reproductive hormones. Menstruation is generally regular. However, it is known that only 39.8% of women aged 20-25 years who have normal menstrual cycles have normal menstrual cycles. Says that estrogen levels in a woman's body have an effect on providing feedback for the release of Gonadotropin Releasing Hormone (GRH) and affecting the release of Follicle Stimulating Hormone (FSH) and Luteinizing Hormone (LH) hormones. A high percentage of body fat causes an increase in androgen production which plays a role in producing estrogen. The process of aromatization of androgens to estrogens occurs in the granulosa cells and fat tissue. Thus, the percentage of body fat tissue plays a role in the balance of the estrogen hormone in the body (Rakhmawati (2013: 48).

## CONCLUSION

There is an effect of giving papaya fruit to the smoothness of menstruation at SMA Negeri 3 Makassar

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