THE EFFECT OF SULE JAMER (RED GINGER SOY MILK) ON THE LEVEL OF MENTRUAL PAIN IN TEENAGE WOMEN IN ISLAMIC BOARDING SCHOOL TAHFIZHUL QUR'AN DAARUL FATH PENGGING BOYOLALI

Intan Pandini[1], Wijayanti[2], Megayana Yessy Maretta[3]

[1]Midwifery Study Program Student, Undergraduate Program at Kusuma Husada University, Surakarta
[2]Lecturer in the Midwifery Study Program, Kusuma Husada University, Surakarta
pandinii232@gmail.com

Article Info	ABSTRACT

Corresponding Author:

Arka MahardikaAuthor's home institutionEmail:
arka.mahardika@gmail.com

Dysmenorrhea or menstrual pain is characterized by cramping pain in the lower abdomen. The impact of dysmenorrhoea on young women is a disturbed sense of comfort, decreased activity, and difficulty concentrating on studying. One of the non-pharmacological therapies to reduce menstrual pain is by giving Sule Jamer (angry ginger soy milk) where the soy milk contains calcium, magnesium, vitamins A, E, B6 and C so it helps reduce stomach cramps during menstruation and relaxes the uterine muscles. Meanwhile, red ginger contains shogaol and gingerol which function as anti-inflammatory by inhibiting the action of enzymes in the cyclooxygenase (COX) cycle so that they can inhibit the release of these enzymes into prostaglandins that cause inflammation. The aim of the research was to determine the effect of Sule Jamer (red ginger soy milk) on the level of menstrual pain in adolescent girls at the Tahfizhul Qur'an Daarul Fath Pengging Boyolali Islamic Boarding School. Quasi experimental research method with a pretest-posttest with control design. The sampling technique used the total sampling method with a total sample of 32 female students who experienced menstrual pain at the Tahfizhul Qur'an Daarul Fath Pengging Boyolali Islamic Boarding School, divided into two groups. Analysis of this research data used the *Wilcoxon* test. The research results showed that the *p value* was 0.001 <0.05, so Ha was accepted. It could be concluded that giving Sule Jamer (red ginger soy milk) had an effect on the level of menstrual pain in young women at the Tahfizhul Qur'an Daarul Fath Pengging Boyolali Islamic Boarding School. The conclusion of the research is that there is an effect of Sule Jamer (red ginger soy milk) which can reduce menstrual pain in young women. Treatment by giving Sule Jamer drink (red ginger soy milk) can be used as an intervention in non-pharmacological treatment.

Keywords:
Soy Milk, Red Ginger, Menstruation, Menstrual Pain, Young Women

1. INTRODUCTION

Complaints related to menstruation in young women are called menstrual disorders. There are several menstrual disorders, namely premenstrual syndrome, painful menstruation (dysmenorrhea), amenorrhea and abnormal uterine bleeding. Menstrual pain (dysmenorrhea) is defined as painful menstruation. Menstrual pain is most often experienced by women aged 17-24 years. The incidence of menstrual pain usually increases at the age of 19 years and over(Dewi Anggraeni et al., 2017).

According to data from the World Health Organization (WHO), the incidence of dysmenorrhoea is very large throughout the world, on average more than 50% of women in each country experience dysmenorrhoea, namely 5.8% -89<5% of women in the world. In the United States, it is estimated that almost 90% of women experience dysmenorrhoea, and 0-5% of them experience severe dysmenorrhoea which makes them unable to carry out any activities. Meanwhile, in Turkey 89.5%, Sweden around 72%, Malaysia as many as 74.5% and India 65% of teenagers experience dysmenorrhoea.(Rianik, 2016). According to the World Health Organization, in 2018, teenagers are the population in the 10-19 year age group in Indonesia whose number is around 46.8 million. Based on data from the Central Java Health Service, the population aged 10-14 years is 1,354,712 people, aged 15-19 years there are 1,353,136 people and aged 20-24 years there are 1,337,940 people (Dinkes, 2019). Based on data from the profile of the Central Java Provincial Health Service in 2017, around 1,465,876 people experienced dysmenorrhoea.

The impacts that occur if menstrual pain is not treated are disruption of daily life activities, retrograde menstruation (menstruation that moves backwards), infertility (sterility), undetected ectopic pregnancy rupture, cyst rupture and infection. Factors that can influence menstrual pain are caused by the presence of excessive amounts of prostaglandin F2α in the blood which triggers uterine hyperactivity and uterine muscle spasms. This menstrual pain needs to be followed up because if left unchecked it can cause teenagers to experience quite serious problems(Windastiwi, W., Pujiastuti, W., 2017). Menstrual pain can be treated pharmacologically or non-pharmacologically, pharmacological treatment is anti-inflammatory drugs including aspirin and ibuprofen formulas. Non-pharmacological treatment, namely with warm compresses, massage, yoga, hypnotherapy, relaxation and using herbal plants(Munthe, L., Harahap, RN, Haji, U., Utara, S., Kunci, K., & Haid, 2021).

Soy milk has a role like NSAIDs (Nonsteroidal Anti-Inflammatory Drugs) which can relieve pain by blocking prostaglandins. Meanwhile, non-pharmacological treatment can be done by consuming 250-500 ml of soy milk once a day(Widyanti, 2016). Soy milk content is based on the United States Department of Agriculture(USDA, 2018), per 100 g of ingredients, namely protein around 3.27 g, total fat around 1.75 g, carbohydrates around 6.28 g, total fiber around 0.6 g, sugar around 3.99 g, mineral content such as calcium, iron, magnesium, phosphorus, potassium, sodium and zinc. Vitamin content such as vitamin C, thiamin, riboflavin, niacin, vitamin B6, folate, vitamin B12, vitamin A, vitamin E, vitamin D and vitamin K. According to(Devi, 2012)Nutrients that can help relieve dysmenorrhea are calcium, magnesium and vitamins A, E, B12 and C. Foods that are good to consume during menstruation include foods high in carbohydrates, vitamins, magnesium, avoid caffeine and salt, dark chocolate, drink water, consume foods high in calcium(Marmi, 2013). Milk is a food that contains Ca (calcium), calcium is believed to help relieve symptoms of anxiety. The advantage of soy milk compared to other non-pharmacological therapies is that calcium plays a role in soy milk in reducing menstrual pain (dysmenorrhea), namely as a substance needed for muscle contractions. When muscles contract, calcium plays a role in protein interactions in the muscles. If the muscles lack calcium, the muscles will not relax after a contraction occurs, which can cause muscle cramps.(Budiarti, 2018).

Apart from consuming soy milk, non-pharmacological therapy to overcome menstrual pain is by using traditional plants or herbal plants, one of which is ginger (zingiber officinale) as an analgesic, antipyretic and anti-inflammatory. Ginger is also a plant that is easy to obtain, cheap and affordable. In Indonesia there are three types of ginger, namely elephant ginger or white ginger (zingiber officinale var. Roscoe), small white ginger or emprit ginger (zingiber officianale var. Amarum) and red ginger or sunti ginger (zingiber officinale var. Rubrun)(Redi Aryanta, 2019). Red ginger contains shogaol and gingerol compounds which function to reduce pain during menstruation.

Red ginger also functions as an anti-inflammatory by inhibiting the action of enzymes in the cyclooxygenase (COX) cycle so that it can inhibit the release of these enzymes into prostaglandins that cause inflammation. The distinctive spicy aroma of ginger is caused by the presence of essential oils and oleoresins. Essential oils can be obtained by steam distillation of dried ginger rhizomes. The essential oil content in dried ginger is around 1% -3%. The main essential oil content in ginger causes its fragrant smell, namely zingiberene and zingiberol. The ginger oleoresin component consists of zingiberene, shagaol, essential oils and resin. The main spicy taste of ginger is gingerol(Pratiwi, LA, & Mutiara, 2017). The essential oil content in red ginger is also higher than other ginger(Pramudya, 2016).

Based on a preliminary study conducted by the administrators of the Tahfidz Qur'an Pengging Boyolali Islamic Boarding School, it was stated that the incidence of dysmenorrhea at the boarding school was 40% of 181 female students. Researchers conducted observations on 32 female students at the Tahfidz Qur'an Pengging Boyolali Islamic Boarding School, the results showed that of the 32 female students who had been observed experiencing pain during menstruation (dysmenorrhea). Of the 32 people who were observed, it was found that 20 (62.5%) people experienced mild pain, 5 (15.7%) people experienced moderate pain and 7 (21.9%) people experienced severe pain. The female students handled pain in several ways, including taking anti-pain medication for 6 (18.75%) people, with warm compresses for 1 (3.1%) people, with relaxation for 6 (18.75%) people, with positions arranged for 8 (25%) people. Meanwhile, 11 (34.38%) other people managed the pain by sleeping or letting the pain go away by itself.

2. METHOD

This research is quantitative research, with the design used is quasi experiment, quasi experimental.

The population in this study were young women at the Tahfizhul Qur'an Daarul Fath Pengging Boyolali Islamic Boarding School. The population in this study was 32 female Islamic boarding school students who experienced menstrual pain. The sampling method used is non-probability with total sampling, namely sampling is carried out by taking all members of the population as respondents or samples.

The data processing techniques include data checking (editing), coding, scoring and tabulation. The data analysis used is univariate analysis, homogeneity test, and bivariate analysis.

3. RESEARCH RESULT

3.1 Univariate Analysis

Table 1. Frequency Distribution of Respondent Characteristics

Respondent Characteristics	Control Group		Experimental Group		Total number	% Total	Sig.
	Amount	%	Amount	%			
Age							
Early Teenagers (13-14 Years)	5	31.2	7	33.3	12	37.5	0.281
Middle Teenagers (15-17 Years)	10	62.6	9	66.7	19	59.4	
Late Teenagers (18 Years)	1	6.2	-	-	1	3.1	
Total	16		16		32		
Menarche Age							
10 years	2	12.5	3	18.7	5	15.6	0.641
11 years old	4	25.0	2	12.5	6	18.7	
12 years old	6	37.5	5	31.3	11	34.3	
13 years old	4	25.0	5	31.3	9	28.2	
14 years	-	-	1	6.2	1	3,2	
Total	16		16		32		
Class							
IX	4	25.0	4	25.0	8	25.0	0.456
X	4	25.0	2	22.5	6	18.6	
XI	5	31.3	4	25.0	9	28.2	
XII	3	18.7	6	37.5	9	28.2	
Total	16		16		32		

Based on table 1 it can be seen that:
1. There were 12 respondents in the early teens category aged 13-14 years (37.5%), 19 respondents in the middle teens category aged 15-17 years (59.4%) and 1 respondent in the late teens category aged 18 years. people (3,1). The majority of respondents' characteristics in the age category in the control group were 10 people (62.6) and in the experimental group, namely 9 people (66.7), therefore the total characteristics of respondents in terms of age were in the middle teens aged 15-17 years, namely 19 people (59, 4).
2. Respondents who experienced menarche or first menstruation at the age of 10 years were 5 people (15.6%), 11 years were 6 people (18.7%), 12 years were 11 people (34.3%), 13 years were 9 people. (28.2%), 14 years old was 1 person (3.2%). The majority of respondents' characteristics in the menarche age category were in the control group at the age of 12 years, namely 6 people (37.5) and in the experimental group, namely 5 people (31.3) at the ages of 12 and 13 years, therefore the total characteristics of respondents at the age of menarche were located at the age of 12 years, namely 11 people (34.3).
3. Respondents from class IX were 8 people (25.0%), class X were 6 people (18.6%), class XI were 9 people (28.2%) and from class . The majority of the characteristics of class category respondents in the control group were in class 2 of SMA, namely 5 people (31.3) and in the experimental group 3 of SMA, namely 6 people (37.5), therefore the total characteristics of respondents in class were located in class 2-3 of SMA, namely 9 people (28.2).

Based on the homogeneity test in table 1, it shows that the characteristics of respondents' age, age of menarche and class in the experimental group and control group obtained a p value of> 0.05, which means there is no difference in the characteristics of respondents' age, age of menarche and class in the experimental group and control group. homogeneous.

3.2 Homogeneity Test

Table 2 Results of Homogeneity Test for Experimental and Control Groups

Variable	Levene Statistics	Sig.	Information
*Pre-test*group Experiment-Control	0.038	0.831	Homogeneous
*Post-test*group Experiment-Control	0.372	0.547	Homogeneous

Based on table 2, it can be said that for the homogeneity test in the pre-test for the experimental and control groups, a significant value was obtained at 0.831, a significant value for the post-test for the experimental and control groups was obtained at a significant value of 0.547. From this explanation, it can be seen that the significant value is >0.005. So it can be concluded that the population has a homogeneous variant or the data comes from a population with the same variant.

3.3 Bivariate Analysis
3.3.1 Measurement of Menstrual Pain Complaint Scores for the Experimental Group and Control Group

Table 3. Measurement of Menstrual Pain Complaint Scores for the Experimental Group and Control Group

Group	*Mean*	*Min*	*Max*
Experiment			
Pre-test	4.44	2.00	8.00
Post test	2.31	0.00	6.00
Control			
Pre-test	4.25	3.00	7.00
Post test	1.81	0.00	6.00

Based on table 3, measuring menstrual pain complaint scores, it was found that in the experimental group the average (mean) pre-test pain score was 4.44 with a minimum score of 2.00 and a maximum score of 8.00. Meanwhile, the average score (mean) for post test pain was 2.31 with a minimum score of 0.00 and a maximum score of 6.00. In the control group the average (mean) pre-test pain score was 4.25 with a minimum score of 3.00 and a maximum score of 7.00.

Meanwhile, the average (mean) for post test pain was 1.81 with a minimum score of 0.00 and a maximum score of 6.00.

3.3.2 Data Normality Test

The data normality test aims to find out whether the data used in the research is normally or not normally distributed. Data is normally distributed if the data has a p value> 0.05 (Sugiyono, 2019). Before data analysis is carried out, the data will be tested for normality. The researcher uses a normality test with the Shapiro-Wilk parameters because the number of respondents is <50.

Table 4. Data Normality Test

Pain Level	*P Value*	Information
Experimental Group Pre-test Scale	0.025	Abnormal
Experimental Group Post test Scale	0.337	Normal
Control Group Pre-test Scale	0.020	Abnormal
Control Group Post test Scale	0.002	Abnormal

Based on table 4, it shows that the results of the Shapiro-Wilk normality test before and after being given sule jamer (red ginger soy milk) show that the p value on the pre test scale for the experimental group is 0.025 and the p value on the post test scale for the experimental group is 0.337 so the p value is <0.05, so distribution data is not normal. The results of the normality test of the data before and after being given treatment (red ginger drink) showed that the p value on the pre-test scale for the control group was 0.020 and the p-value on the post-test scale for the control group was 0.002, so that the p value was >0.05, meaning the data was not normally distributed. From the results of the normality test, the data was stated to be not normally distributed, so the data analysis test used the Wilcoxon test.

3.3.3 Differences in Menstrual Pain Complaint Scores for the Experimental Group and the Control Group

Table 5. Wilcoxon Test Analysis Results for Experimental and Control Groups

Group	Sig.
Pre-post test Experimental group	0.001
Pre-post test Control group	0,000

Based on table 5, the results of the Wilcoxon test analysis before and after being given sule jamer (red ginger soy milk) treatment showed that the result was p value = 0.001 with a significant p value <0.05 which shows that there was a decrease in menstrual pain (dysmenorrhea) experienced by female students in Tahfizhul Qur'an Daarul Fath Pengging Boyolali Islamic Boarding School.

Meanwhile, the results of the Wilcoxon test analysis before and after being given the treatment (red ginger drink) showed that p value = 0.000 with a significant p value <0.05 which shows that there is also an effect of giving red ginger drink on reducing pain (dysmenorrhea) experienced by female students. at the Tahfizhul Qur'an Daarul Fath Pengging Boyolali Islamic Boarding School.

3.3.4 Test of differences/comparison between treatments given to the experimental group (red ginger soy milk) and the control group (red ginger wedang)

Table 6. Differences from the Independent t-test of administration of Red Ginger Soy Milk (Experimental Group) and Red Ginger Wedang (Control Group)

Variable	Normality		Homogeneity		Test the Difference	
	Sig.	Note.	Sig.	Note.	Sig.	Note.
Sel. Pre-post Ex Experiment	0.121	Normal	0.114	Homogene	0.003	There's a
Sel. Pre-post Control Ex	0,000	Abnormal		ous		difference

From table 6, the results of the normality test for the experimental group show a p value of 0.121, which means >0.005, so the distribution is normal. And the results of the control group showed a p value of 0.000, which means <0.005, so the distribution is not normal. The results

of the homogeneity test obtained a significant value, namely p value 0.114, which means >0.005, so the two groups have a homogeneous distribution. Then a difference test was carried out between the 2 groups using the Independent t-test, which resulted in a significant p value of 0.003, which means <0.005, so there was a significant change in the two groups.

4. DISCUSSION
4.1 Univariate Analysis
4.1.1 Age and Class
The results of the frequency distribution based on age showed that all respondents experienced menstrual pain. On average, menstrual pain is experienced by 16 year old teenage girls with a percentage of 59.4%. The incidence of menstrual pain is also influenced by women aged 16 years, which is the age of middle adolescence (age range 15-17 years) because during this period teenagers experience changes in themselves. One of the changes that occurs in young women is experiencing menstruation with the process of expelling blood through the vagina due to the decay of the inner uterine wall(Mugiati, 2018)

This is also supported by previous research presented by Junizar (2011) in(Aningsih, 2018), that menstrual pain generally occurs at the age of 15-25 years. Apart from that, at this age there is also often an optimization of the function of the uterine nerves which increases the secretion of prostaglandins, thus causing pain during what can be called dysmenorrhea.

The results of the frequency distribution by class showed that the average female adolescent who experienced menstrual pain was in class XII of Senior High School (SMA) with a percentage of 28.2%, the average age of class According to(Mugiati, 2018)16 years old is the age of middle adolescence (age range 15-17 years) where at this age, teenagers experience changes in themselves. It can be concluded that there is a relationship between level and the incidence of menstrual pain in adolescent girls.

4.1.2 Menarche Age
The results of the frequency distribution based on age of menarche showed that the average female adolescent who experiences menarche or first menstruation is at the age of 12 years with a percentage of 34.3%. This is in line with research conducted by Budiarti in 2018 regarding "The Effectiveness of Providing Soy Milk and Red Ginger Therapy in Reducing the Scale of Menstrual Pain (Dysmenorrhoea) in Adolescent Girls at the AlJihad Islamic Boarding School. what happens psychologically.(Budiarti, 2018).

This is also supported by previous research presented by(Jayanti, 2021)that the vulnerable age of menarche is 11-13 years with the majority of cases of dysmenorrhea in the category of 10 respondents between the age of menarche and dysmenorrhea in young women with a p value of 0.001 <0.05. It can be concluded that there is a relationship between the age of menarche and the incidence of menstrual pain in adolescent girls.

4.2 Bivariate Analysis
4.2.1 Menstrual Pain Score Before and After Intervention
The research results showed that the average menstrual pain score in the experimental group before the intervention was 4.44 with the lowest menstrual pain score being 2.00 and the highest menstrual pain score being 8.00. In the control group the average menstrual pain score before the intervention was 4.25 with the lowest menstrual pain score being 3.00 and the highest menstrual pain score being 7.00. Meanwhile, the average menstrual pain score in the experimental group after the intervention (red ginger soy milk) was 2.31 with the lowest menstrual pain score being 0.00 and the highest score being 8.00. In the control group the average menstrual pain score after the intervention (red ginger drink) was 1.81 with the lowest menstrual pain score being 0.00 and the highest menstruation score being 6.00.

After being given sule jamer (red ginger soy milk), it showed a decrease in the average menstrual pain score in adolescent girls. The average score for menstrual pain before being given red ginger soy milk was 4.44 and decreased to 2.31 after young women consumed red ginger soy milk. The decrease in the average value of intensity of menstrual pain in respondents before and

after was 2. From these results, researchers can conclude that giving red ginger soy milk has an effect on reducing menstrual pain in young women.(Budiarti, 2018).

4.2.2 Analysis of the Effect of Giving sule jamer (Red Ginger Soy Milk) on reducing Menstrual Pain in Young Women at the Tahfizhul Qur'an Daarul Fath Pengging Boyolali Islamic Boarding School

Based on the results of research data analysis, a homogeneity test was carried out, the results of which were homogeneous and a normality test was carried out, the results of which were not normal. Because the requirements for the Paired Sample t-test must be a homogeneous group of test data and the normality test is normally distributed, to determine the effect of giving red ginger soy milk, the Wilcoxon test was used and it was found that the results of the Wilcoxon test before and after being given red ginger soy milk showed that p value = 0.001 with a significant p value = <0.05 which indicates that there is a decrease in menstrual pain (dysmenorrhea) experienced by young women after being given red ginger soy milk. The results of this research are in line with research conducted by(Amalia, Amirul; Sulistiyowati, 2018)with the title "The Benefits of Soy Milk Drinks in Reducing Dysmenorrhea in Adolescent Girls" with the results that there was a difference in the level of menstrual pain before and after the intervention with giving soy milk with a significant value smaller than alpha p 0.000 (p<0.05). Other research was also carried out by(Ramli, N., & Santy, 2017)by title ""Effectiveness of Giving Ginger Concoction (Zingibers Officinale) and Rosella Tea (Hibiscus sabdariffa) on Changes in the Intensity of Menstrual Pain" with the results of giving red ginger concoction to reduce menstrual pain (dysmenorrhea) with a p value <0.005 p value = 0.000 which means Ha is accepted and H_0rejected. Respondents who experienced a decrease in the degree of menstrual pain (dysmenorrhea) were due to treatment in the form of giving red ginger soy milk. The results of this study are the same as those conducted by researchers, namely that soy milk and red ginger can reduce menstrual pain (dysmenorrhea).

*Dysmenorrhea*defined as menstrual pain, menstrual pain that often appears as lower abdominal cramping pain that occurs throughout menstruation. The intensity of menstrual pain is divided into mild, moderate and severe pain(Adlin, 2020). Factors that influence menstrual pain are caused by the presence of excessive amounts of prostaglandin F2α in the blood which triggers uterine hyperactivity and uterine muscle spasms. This menstrual pain needs to be followed up because if left unchecked it can cause young women to experience quite serious problems(Windastiwi, W., Pujiastuti, W., 2017).

Menstrual pain can be treated pharmacologically and non-pharmacologically, pharmacological treatment is using anti-inflammatory drugs including aspirin and Ibu Profen formulas. Concern about side effects of medication. One non-pharmacological therapy to treat menstrual pain is by using traditional plants or herbal plants, one of which is red ginger (zingiber officinale) and soybeans. The rhizome of red ginger (zingiber officinale) functions as an analgesic, antipyretic and anti-inflammatory, while soybeans function as an antioxidant.

Just before menstruation, a woman's body produces a substance called prostaglandin. This substance has the function of making the uterine wall contract and the surrounding blood vessels become squeezed (contraction), which causes tissue ischemia. Soybeans are a fairly high source of calcium, calcium is a mineral that is needed in the body which can reduce contractions/cramps in the uterine muscles so that the uterine muscles relax and can reduce pain during menstruation.(Amalia, Amirul; Sulistiyowati, 2018)Meanwhile, red ginger which contains essential oils as well as gigerol and shagol is able to block prostaglandins so it can reduce menstrual pain, red ginger also has anti-inflammatory properties so it can reduce menstrual pain.(Fajaraina, 2019).

Researchers believe that giving red ginger soy milk is expected to reduce menstrual pain. From the results of observations and measurements after the intervention of giving sule jamer (red ginger soy milk), it was obtained that all respondents experienced a decrease in pain intensity after being given the intervention of giving sule jamer (red ginger soy milk). Respondents indicate the level of pain they feel using the Numeric Rating Scale (NRS). So it can be concluded that giving sule jamer (red ginger soy milk) is a non-pharmacological pain management that can help reduce menstrual pain in young women.

4.2.3   Analysis of the Differences in Treatment Given to the Experimental Group (Red Ginger Soy Milk) and the Control Group (Red Ginger Wedang)

Based on the results of research data analysis, a data normality test was carried out on the results of the experimental group, namely 0.004, meaning <0.005, which is not normally distributed, and for the control group, namely 0.013, meaning >0.005, which is normal distribution data. The results of the homogeneity test showed significant results, namely p value = 0.730, meaning >0.005, which means the data for the two groups are homogeneously distributed. Then a difference test was carried out between the 2 groups using the Mann-Whitney test, which resulted in a significant p value of 0.807, meaning >0.005, so it was concluded that there was no significant difference between the 2 groups.

The difference between the experimental group (red ginger soy milk) and the control group (red ginger wedang) lies in the variables observed in the research context. The variable observed was the type of drink consumed by the two groups. The experimental group consumed red ginger soy milk and the control group consumed red ginger drink. In other words, the experimental group was given treatment in the form of red ginger soy milk, while the control group received red ginger drink.

Comparisons between the experimental and control groups in this study were used to evaluate whether the addition of red ginger in soy milk (compared to just red ginger) had a significant influence or effect on observed variables such as taste, aroma, efficacy and other relevant factors.(Betty, 2021). So it can be concluded that the difference between the experimental and control groups is the type of additional ingredients used in making red ginger soy milk drinks, but these two treatments both have an effect or influence on the level of menstrual pain experienced by young women at the Tahfizhul Qur'an Islamic Boarding School. Daarul Fath Pengging Boyolali.

5.   CONCLUSION

Based on the results of research and discussion regarding the effect of giving sule jamer (red ginger soy milk) on the level of menstrual pain in young women at the Tahfizhul Qur'an Daarul Fath Pengging Boyolali Islamic Boarding School, it can be concluded as follows:

5.1 The average level of menstrual pain for each characteristic, namely the characteristics of respondents aged 15-17 years, is 19 people (59.4), the characteristic of respondents aged 12 years is 11 people (34.3). and the characteristics of the respondents in the class are located in class 2-3 of SMA, namely 9 people (28.2).

5.2 The average level of menstrual pain in the experimental group before being given the intervention was 4.44 (moderate pain) while in the control group before being given the intervention was 4.25 (moderate pain).

5.3 The average level of menstrual pain in the experimental group after being given the intervention was 2.31 (mild pain) while in the control group after being given the intervention was 1.81 (moderate pain).

5.4 Based on the results of the Wilcoxon test before and after being given red ginger soy milk, the result was p value = 0.001 with a significant p value <0.05, meaning there was a decrease. It can be concluded that there was a decrease in the level of menstrual pain experienced by young women after being given red ginger soy milk in the experimental group and red ginger drink in the control group so that the hypothesis (Ha) in this study was accepted and the hypothesis (H_0) rejected.

BIBLIOGRAPHY

Adlin. (2020). Intensity of Dysmenorrhea and Analgesic Treatment Used among Female Students at the Faculty of Medicine, Hasanuddin University.

Amalia, Amirul; Sulistiyowati, YR (2018). Benefits of Soy Milk Drinks in Reducing Dysmenorrhea in Adolescent Girls.

Aningsih, S. Eka. (2018). The Effect of Providing Deep Breathing Relaxation Techniques on Reducing the Intensity of Menstrual Pain (Dysmenorrhea) in Sanggau Landungsari Malang

Dormitory Students.

Betty, & A. (2021). The Effect of Giving Boiled Red Ginger Water on Reducing Dysmenorrhea in Semester 8 Female Students of Stikes Widya Dharma Husada Tangerang.

Budiarti, A. (2018). Journal of Research on the Effectiveness of Providing Soy Milk Therapy on Reducing the Scale of Menstrual Pain (Dysmenorrhea) in Adolescent Girls at the Al-Jihad Islamic Boarding School in Surabaya.

Devi, N. (2012). Nutrition During Menstrual Syndrome.

Dewi Anggraeni, R., Lismidiati, W., Harjanto, T., Nursing Science Studies, P., Medicine, F., Society, K., Nursing, and, Gadjah Mada, U., Child and Maternity Nursing, D. , & Psychiatric and Community Nursing, D. (2017). Relationship between Menstrual Pain and Student's Learning Concentration in a Public High School in the Cangkringan District. Journal of Clinical And Community Nursing, 140(3), 140–148.

Health Department. (2019). Central Java Health Profile.

Fajaraina, AA (2019). Acupressure and ginger drink to reduce menstrual pain or dysmenorrhoea in adolescent girls. Muhammadiyah University of Magelang, 4–11.

Jayanti. (2021). Description of factors that influence children's readiness to face menarche at SD Negeri 1 Kretek, Paguyangan District, Brebes Regency.

Marmi. (2013). Nutrition in Reproductive Health.

Mugiati. (2018). The relationship between stress and changes in menstrual patterns in Tanjungkarang Midwifery Students.

Munthe, L., Harahap, RN, Haji, U., Utara, S., Kunci, K., & Haid, N. (2021). The Effect of Warm Water Compresses on Dysmenorrhea Pain in Adolescents in the Simalangalam Community Health Center Area.

Pramudya, A. (2016). Ginger Cultivation and Business. In Agromedia Library.

Pratiwi, L A. and Mutiara, H. (2017). The Effect of Ginger on Pain during Menstruation.

Redi Aryata, IW (2019). Benefits of Ginger for Health.

USDA. (2018). United States Department of Agriculture.

Widyanti, DE (2016). The Influence of Menstrual Pain (Dysmenorrhea) on Daily Activities in Adolescents at SMP N 2 Ponorogo.

Windastiwi, W., Pujiastuti, W., & M. (2017). The Effect of Abdominal Stretching Exercise on Dysmenorrhea Pain Intensity Abdominal Stretching Exercise Lecture of Diploma Program Midwifery Magelang.