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THE EFFECT OF GIVING MILK CHOCOLATE AND PUMPKIN (*CURCUBITA MOSCHATA DUCH*) ON REDUCING PRIMARY MENSTRUAL PAIN (*DYSMENORRHEA*) IN X-XI GRADES ADOLESCENT GIRLS AT SMA IBRAHIMY 2 OF SALAFIYAH SYAFI'IYAH SUKOREJO SITUBONDO ISLAMIC BOARDING SCHOOL

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ABSTRACT

Background: Dysmenorrhea is a condition where pain and cramps are felt in the lower abdomen, followed by signs of headache, nausea, diarrhoea, and sweating occurring 24 hours before menstruation and lasting 1-2 days during menstruation. **Objective:** This study aims to assess the impact of milk chocolate and pumpkin (*Cucurbita Moschata Duch*) on alleviating primary menstruation pain (dysmenorrhea) in female teenagers in grades X and XI at SMA Ibrahimy 2 of Salafiyah Syaf'iyah Sukorejo Situbondo Islamic Boarding School. **Method:** The research was carried out at SMA Ibrahimy 2 including students in grades X and XI. This research used a quasi-experimental design using a two-group pre-test and post-test framework. The research sample comprised 60 participants (30 in the intervention groups and 30 in the control groups), whereas the total study population consisted of 1,042 female undergraduates. The Numeric Rating Scale (NRS) was utilized to assess pain severity before and after the intervention, administered twice daily for three days. Data analysis employing Mant Withnay to assess the impact of administering milk chocolate and pumpkin (*Cucurbita Moschata Duch*) on alleviating the severity of menstrual pain (dysmenorrhea) in adolescent girls at the Salafiyah Syafi'iyah Sukorejo Situbondo Islamic Boarding School, alongside the Wilcoxon test to compare the pain intensity scales between the intervention and control groups. **Results:** The findings indicated that the administration of Milk Chocolate and pumpkin (*Cucurbita Moschata Duch*) significantly alleviated primary menstrual pain (dysmenorrhea) in adolescent girls in grades X-XI at SMA Ibrahimy 2, with a p-value of <0.005, and a comparison of pain intensity in the intervention group yielding a p-value of 0.000 (<0.05). Conversely, in the control group, the p-value is 1.000 (>0.05). The severity of pain differs between the intervention and control groups.

INTRODUCTION

Adolescence is a transition period from childhood to adulthood, aged 12-24 (Betty; Ayamah;, 2021). Changes in the body during adolescence are marked by increased height and body weight, growth of bones and muscles, and maturity of sexual organs and reproductive function (Nabila). Dysmenorrhea is a reproductive health issue that manifests in adolescent females and frequently affects menstrual women. Menstruation signifies a woman's attainment of sexual maturity, characterized by the regular and cyclical expulsion of blood from the uterus, accompanied by the desquamation of the uterine lining (*menarche*) (Muhriyani, Erika, & Jumaini, 2022). Menstruation experienced by adolescent girls often causes complaints of dysmenorrhea with varying pain scales ranging from mild to severe pain (Sholikhah & Widiastuti, 2021).

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Dysmenorrhea is a condition characterized by abdominal discomfort during menstruation. Dysmenorrhea manifests before to or at the onset of menstruation. Menstrual pain is often experienced in the lower or mid-abdomen, and may extend to the hips, thighs, and back (Silaen, Ani, & Putri, 2019). Dysmenorrhea is a disorder characterized by discomfort and cramps in the lower abdomen, accompanied by symptoms such as headache, nausea, diarrhea, and perspiration, occurring 24 hours before to menstruation and lasting for 1-2 days (Paujiah, Salman, & Hilmi, 2023). Dysmenorrhea is categorized into two types: primary and secondary dysmenorrhea. Primary dysmenorrhea is a menstrual discomfort experienced without any underlying genital abnormalities, typically manifesting for the first time in women aged 20 years or younger, coinciding with the establishment of their ovulatory cycle (Khoirunnisa, et al., 2023). Primary dysmenorrhea will cause several symptoms, including fatigue, dizziness, headache, fainting, diarrhoea, and emotional instability during menstruation (Ningrum & Solichhatin, 2023). Secondary dysmenorrhea is pain felt during menstruation which arises due to genital abnormalities and is generally experienced by women who are over 30 years old (Khoirunnisa, et al., 2023). Menstrual pain management in adolescent girls often uses pharmacological drugs such as NSAIDs which when consumed routinely have long-term side effects, so it is hoped that menstrual pain that is still in the normal category, can be handled using pharmacological therapy such as consuming avocados, this fruit has an iron content so it can reduce complaints of menstrual pain in adolescent girls.

Dysmenorrhea Primary is caused by an increase in the hormone prostaglandin, which is suspected of being related to the occurrence of dysmenorrhea. Myometrial contractility increases because the hormone prostaglandin has a phasocontraction effect, which can cause ischemia in the myometrium. It is what will cause pain during menstruation, Lacovides (2015) in (Amalia, 2020). Dysmenorrhea often manifests between the ages of 17 and 20, generally emerging 3 to 5 years post-menarche (Irianti, Faktor-Faktor Yang Mempengaruhi Kejadian Dismenorea Pada Remaja, 2018). The World Health Organization (WHO) reports that the prevalence of dysmenorrhea is very high globally, with an average incidence of 50% among women in various countries (Jusni, Akhfar, Arfiani, & Khaera, 2022). The prevalence of primary dysmenorrhea in Indonesia is 54.89%, whereas secondary dysmenorrhea is 9.36% (Wildayani, Lestari, & Ningsih, 2023). Dysmenorrhea prevalence in East Java is 71.3% (Nurfadillah, H., et al, 2021). The prevalence of mild dysmenorrhea among teenage females at the Salafiyah Syafi'iyah Sukorejo Situbondo Islamic Boarding School was 50.76% (Susanti, Oktadiana, & Nikmah, 2022). A preliminary investigation at the Salafiyah Syafi'iyah Sukorejo Situbondo Islamic Boarding School revealed that 85% of female teenagers suffered from primary dysmenorrhea. Strategies employed to alleviate dysmenorrhea often involve pharmaceutical and non-pharmacological interventions. Pharmacological intervention for dysmenorrhea involves the use of analgesics and non-steroidal anti-inflammatory medicines, including mefenamic acid, piroxicam, and ibuprofen, among others. Non-pharmacological interventions for dysmenorrhea encompass engaging in mild exercise, employing relaxation techniques, and applying warm water compresses to the affected region (Misliani, Mahdalena, & Firdaus, 2019).

The metabolism and absorption of vitamins and minerals can significantly influence the management and duration of dysmenorrhea. Calcium is a compound that modulates the responsiveness of muscle cells to neural stimulation and functions as a stabilizing

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agent. Reduced calcium levels can induce muscular spasms and contractions (Abdih, Amjadi, Zaheri, & Rahnemei, 2021). Calcium is needed to reduce stomach and menstrual cramps by 500-800mg/day (Susilowati, 2014). Milk chocolate has 189mg/100 grams of calcium (See, Yuan, & Tou, 2019). Besides that, pumpkin (*Curcubita Moschata Duch*) is also a plant with high nutrients. The nutritional value contained in pumpkin is very much such as macronutrients (moisture, ash, fat, protein, fiber, carbohydrates) and micronutrients (beta-carotene, vitamin A, iron, phosphorus, potassium, magnesium and calcium) in 100g of boiled pumpkin powder has 171, 658mg of calcium (Kothari & Sharma, 2020). In light of the aforementioned explanation, the researcher was compelled to undertake a study to ascertain the impact of administering milk chocolate and yellow pumpkin (*Cucurbita Moschata Duch*) on the alleviation of primary menstrual pain (dysmenorrhea) in female adolescents of grades X-XI at SMA Ibrahimy 2 of Salafiyah Syaf'iyah Sukorejo Situbondo Islamic Boarding School.

METHODS

This study employs a quantitative research design utilizing a quasi-experimental approach with a two-group pre-test and post-test framework. The two-group pre-test and post-test design is a methodology that seeks to demonstrate a causal relationship by incorporating both a control group and an intervention group. The methodology employed for sampling in this study is purposive sampling. The study employed a questionnaire to assess menstrual discomfort, and validity and reliability tests were conducted. The research was conducted at SMA Ibrahimy 2 under the Salafiyah Syafi'iyah Sukorejo Situbondo Islamic Boarding School. The investigation was done from June 2 to June 15, 2024. The study's population comprised 1,042 female students in Grades X and XI. The sample that satisfied the requirements for this study comprised 60 respondents, divided into two groups: 30 respondents in the intervention group and 30 in the control group. The processing procedure was executed subsequent to data collection, verification of the questionnaire, and enhancements to the form or questionnaire. At this step, the questionnaire administered to the respondents was reviewed for data accuracy and subsequently revised to ensure all responses were complete. The data in phrases or letters is transformed into numerical values and input into the computer program, which then verifies the completeness of the respondent's data entry. The Mant Withnay analytical test was performed to assess the impact of administering milk chocolate and pumpkin (*Cucurbita Moschata Duch*) on alleviating menstruation pain in adolescent females.

RESULTS

Table 1. Characteristics of X-XI Grade Female Students at SMA Ibrahimy 2

Variables	Amount		Percentage %	
	Intervention Group	Control Group	Intervention Group	Control Group
Age				
15 years	-	4	-	13.3%
16 years	15	16	50%	53.3%
17 years	15	10	50%	33.3%

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Total	**30**	**30**	**100%**	**100%**
Age of Menarche				
< 12 years (early menarche)	10	2	33.3%	6.7%
12-14 years (normal menarche)	20	28	66.7%	93.3%
Total	**30**	**30**	**100%**	**100%**
Cycle				
< 21 days	5	3	16.7%	10%
21-35 days	23	27	76.7%	90%
> 35 days	2	-	6.7%	-
Total	**30**	**30**	**100%**	**100%**
IMT				
<18.5 (Skinny)	5	7	16.7%	23.3%
18.5-24.9 (Ideal)	23	21	76.7%	70.0%
25.0-29.9 (Fat)	2	1	6.7%	3.3%
30.0->40.0 (Obesity)		1		3.3%
Total	**30**	**30**	**100%**	**100%**
Family History				
No	7	**-**	23.3%	23.3%
Don't know	11	8	36.7%	70.0%
Yes	12	22	40%	3.3%
Total	**30**	30	**100%**	3.3%

The age features of the respondents in the intervention group, as indicated in the table above, are 16 to 17 years. Fifteen individuals (50%) are 16 years old, while another fifteen individuals (50%) are 17 years old. The majority of menarche occurred between the ages of 12 and 14 years, with 20 individuals (66.7%). The majority of menstrual cycles, categorized between 21-35 days, are represented by 23 individuals (76.7%). The predominant BMI within the 18.5-24.9 range is 23 individuals (76.7%). Among the responders, 12 individuals (40%) had a family history of dysmenorrhea.

The age characteristics of most respondents in the control group were 16 years old, 16 people (53.3%). The most menarche at the age of 12-14 years, 28 people (93.3%). The most menstrual cycles in the 21-35 days category were 27 people (90%). The highest BMI in the 18.5-24.9 category was 21 people (70%). Most respondents had a family history of dysmenorrhea, 22 respondents (73.3%).

Table 2. ***Frequency Distribution of Pain Levels in Intervention Group X-XI grades at SMA Ibrahimy 2***

Pain Intensity	**Amount**		**Percentage %**	
	Before	**After**	**Before**	**After**
No Pain (0)	-	16	-	53.3%
Mild Pain (1-3)	8	13	26.7%	43.3%
Moderate Pain (4-6)	22	1	73.3%	3.3%
Severe Pain (7-10)	-	-	-	-
Total	**30**	**30**	**100%**	**100%**

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According to Table 2, the prevalence of primary dysmenorrhea pain levels among female students in grades X-XI at SMA Ibrahimy 2 prior to the administration of Milk Chocolate and Pumpkin (*Cucurbita Moschata Duch*) indicated that the majority experienced moderate pain, totaling 22 individuals (73.3%). Following the intervention, a significant reduction was observed, with the majority reporting no pain, amounting to 16 individuals (53.3%).

Table 3. Frequency Distribution of Pain Levels in the Control Group of X-XI Grade Female Students at SMA Ibrahimy 2

Pain Variables	Amount		Percentage %	
	Before	After	Before	After
No Pain (0)	-	-	-	-
Mild Pain (1-3)	13	13	43.3%	43.3%
Moderate Pain (4-6)	17	17	56.7%	56.7%
Severe Pain (7-10)	-	-	-	-
Total	**30**	**30**	**100%**	**100%**

Frequency of the level of primary dysmenorrhea pain based on Table 3 above in X-XI grades female students at SMA Ibrahimy 2 before being given education on handling dysmenorrhea pain, namely the majority experienced moderate pain with a total of 17 people (56.7%) and this number did not decrease after being given education on handling dysmenorrhea pain.

Table 4. Frequency Distribution of Post-Test Pain Intensity in the Intervention Group and Control Group

	Group comparison	N	Mean Renk	Sum of Rank	*Z*	*P Value*
Post Test Pain Scale Intervention Group And Control Group	Intervention Group	30	18.60	558.00	-5,619	0,000
	Control Group	30	42.40	1272.00		
	Total	**60**				

Table 4 presents the findings of the Mant Withnay Test, indicating that the pain scale post-treatment in the intervention group was much lower, whereas the pain scale in the control group remained considerably elevated; the statistical analysis yielded a P-value of 0.000 ($p < 0.005$). Consequently, it may be inferred that Milk Chocolate and Pumpkin (*Cucurbita Moschata Duch*) diminish pain severity during dysmenorrhea.

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Table 5. Frequency Distribution of Differences in Pain Scale Intensity Reduction

		N	Mean Rank	Sum of Ranks	Z	P-Value
Post-Test Pain Scale Intervention Group - Pre-Test Pain Scale Intervention Group	Negative Ranks	28a	14.50	406.00	-4.786a	.000
	Positive Ranks	0b	.00	.00		
	Ties	2c				
	Total	30				
Pain Scale Post Test Control Group - Pain Scale Pre-Test Control Group	Negative Ranks	0d	.00	.00	.000b	1,000
	Positive Ranks	0e	.00	.00		
	Ties	30f				
	Total	30				

The Wilcoxon test results indicate that the intervention group has a Z-value of -4.786 and an Asymp. Sig. (2-tailed) value of 0.000, which is less than 0.05. Conversely, the control group exhibits a Z-value of 0.000 and an Asymp. Sig. (2-tailed) value of 1.000, which exceeds 0.05. There exists a notable disparity between the pre-test and post-test pain scores of the intervention group and those of the control group.

DISCUSSION

Respondent Characteristics

Dysmenorrhea often manifests between the ages of 16 and 25, with peak prevalence occurring at ages 17 to 20 (Irianti, Faktor-Faktor Yang Mempengaruhi Kejadian Dismenore Pada Remaja, 2018). The participants in this study were aged 15 to 17 years. In the intervention group, there were 15 individuals (50%) aged 16 and 15 individuals (50%) aged 17. In the control group, there were four individuals (13.3%) aged 15, 16 individuals (53.3%) aged 16, and 10 individuals (33.3%) aged 17. The results of this research data are the same as the research of Sophia (2013) on female students of SMK Negeri 10 Medan, getting the results that most were aged 15-17 years (83%). The age of menarche is the age at which menstruation first occurs. Menarche occurs at various ages ranging from 10-16 years. The age of menarche is categorized as normal if it occurs in the age range of 12-14 years (Susanti A. V. & Sunarto, 2012).

The research data in Table 1 indicates that in the intervention group, 10 respondents (33.3%) experienced menarche before the age of 12 years, categorizing them as early menarche cases. Twenty individuals (67.7%) experienced menarche between the ages of 12 and 14 years, categorizing them within the usual menarche range. The research data from the control group indicated that among respondents, 2 individuals (6.7%) experienced menarche before the age of 12, categorizing them as early menarche, while 28 individuals (93.3%) experienced menarche between the ages of 12 and 14,

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categorizing them as normal menarche. Prior investigations carried conducted by (Shrotriya, Ray, Ray, & George, 2012) The age of menarche correlates with the prevalence of dysmenorrhea in teenage females. Menstrual cycle disorders are abnormalities in women's menstrual cycle patterns, including Polymenorrhea (<21 days), Oligomenorrhea (>35 days), and Amenorrhea (>3 months) (Juliana, Rompas, & Onibala, 2019).

The research data indicates that in the intervention group, 5 respondents (16.7%) had a menstrual period of less than 21 days, whereas 23 respondents (76.7%) had a cycle ranging from 21 to 35 days. Two individuals (6.7%) reported a menstrual period exceeding 35 days. In the control group, the research data revealed that 3 respondents (10%) had menstrual cycle characteristics of less than 21 days, whereas 28 respondents (90%) experienced cycles ranging from 21 to 35 days. The research conducted by Asma'ulluddin (2015) indicated that the median menstrual cycle duration for female teenagers in West Jakarta was 28 days (ranging from 21 to 35 days), categorizing it as normal; the majority of respondents reported a menstrual cycle within the 21-35 day range. Individuals with underweight status, characterized by diminished physical condition and less pain resistance, also have menstruation difficulties. Simultaneously, overweight individuals with elevated nutritional status may experience Dysmenorrhea due to excessive adipose tissue, which induces hyperplasia of blood vessels in the female reproductive organs, leading to circulatory disturbances during menstruation and resultant pain (Bamatraf, Gloria, & Putra, 2024). The research findings indicate that in the intervention group, there were 5 individuals (16.7%) with a Body Mass Index (BMI) <18.5 (Underweight), 23 individuals (76.7%) with a BMI of 18.5-24.9 (Normal weight), and 2 individuals (6.7%) with a BMI of 25.0-29.9 (Overweight). In the control group, the research data revealed that 7 respondents (23.3%) had a Body Mass Index (BMI) of less than 18.5 (Underweight), 21 respondents (70%) had a BMI between 18.5 and 24.9 (Normal weight), 1 respondent (3.3%) had a BMI between 25.0 and 29.9 (Overweight), and 1 respondent (3.3%) had a BMI of 30 or greater (Obesity). The majority of participants in this study had a normal Body Mass Index (18.5-24.9). This aligns with prior study by Hikma et al. (2021), which indicated that 49 (65.3%) respondents had a normal Body Mass Index (BMI).

Familial history significantly influences the prevalence of primary dysmenorrhea. It is attributable to inherited (genetic) elements that might influence a woman's state (Tesya & Sarmalina, 2021). The research data indicates that in the intervention group, 12 respondents (40%) had a history of Dysmenorrhea, 7 respondents (23.3%) did not have such a history, and 11 respondents (36.7%) were uncertain about their history of Dysmenorrhea. In the control group, the research findings indicated that 22 respondents (73.3%) had a history of Dysmenorrhea, while 8 respondents (26.7%) were uncertain about their history of the condition. Prior study by Fatmawati & Aliyah (2020) indicated that the statistical analysis yielded a P-value of 0.194, beyond the threshold of 0.05, so revealing no significant link between family history and the occurrence of Dysmenorrhea.

Pain Intensity Level Before Given Milk Chocolate and Pumpkin (*Curcubita Moschata Duch*) in the Intervention Group and Education on Menstrual Pain Management (Dysmenorrhea) in the Control Group

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The uterus will contract more strongly during menstruation, causing pain in the lower abdomen. The pain experienced by each person during menstruation varies from mild to moderate to severe abdominal pain (Eva, 2023). The examination of the study results shown in Table 2 illustrates the pain intensity prior to the administration of milk chocolate and pumpkin (*Cucurbita Moschata Duch*). The majority of responders in the intervention group reported experiencing moderate dysmenorrhea discomfort severity. Twenty-two individuals (73.3%) reported minor discomfort, whereas eight individuals (26.7%) did not. This data highlights that dysmenorrhea is a significant issue for this group of respondents, with the majority experiencing a level of pain that can disrupt their daily activities. Moderate pain can certainly limit productivity and quality of life. The high proportion of respondents with moderate pain indicates a great need for effective interventions to reduce dysmenorrhea complaints in this population, Chocolate and pumpkin (Curcubita Moschata Duch) are interventions that we use as an alternative to reduce menstrual pain.

Table 3 presents the findings from the examination of the research data. In the control group, prior to receiving information on managing primary dysmenorrhea pain, the majority reported mild discomfort, with 13 individuals (43.3%), while 17 individuals (56.7%) had moderate pain. These data serve as a reference point for comparison or measurement of changes that are important for measuring the effectiveness of chocolate milk and pumpkin interventions. By knowing the distribution of pain intensity before the intervention, we can evaluate whether the administration of both substances provides significant changes towards reducing pain.

Pain Intensity Level After Given Milk Chocolate and Pumpkin (*Curcubita Moschata Duch*) in the Intervention Group and Education on Menstrual Pain Management (Dysmenorrhea) in the Control Group

The majority did not experience pain after consuming Milk Chocolate and Pumpkin (*Cucurbita Moschata Duch*). The analysis results, detailed in Table 2, indicate that 16 individuals (53.3%) reported no pain following the administration of these substances. Thirteen individuals (43.3%) reported mild discomfort, while one individual (3.3%) had strong pain. From the data explained the majority of respondents (53.3% or 16 people) reported no pain after the intervention compared to the pre-intervention condition where the majority experienced moderate pain and the number of respondents experiencing mild pain also increased substantially to 43.3% (13 people). This indicates a shift towards lower pain intensity and only a small proportion of respondents (3.3% or 1 person) still experienced moderate pain after the intervention. The drastic decrease from 73.3% to 3.3% indicates the potential effectiveness of providing Chocolate Milk and Yellow Pumpkin (Curcubita Moschata Duch). This is also because the researchers carried out the intervention according to the SOP and the respondents were cooperative, strengthening the validity of the results. This indicates that the observed changes are most likely due to the intervention and not other factors and is supported by significant changes in the distribution of pain intensity in the data.

In the control group, same findings were seen before and after receiving instruction on dysmenorrhea management, with 13 individuals (43.3%) reporting no change, while 17 individuals (56.7%) had moderate discomfort. The results demonstrate that education alone, without any physical or pharmacological intervention, did not significantly reduce the degree of dysmenorrhea discomfort in the control group. The control group statistics are crucial for comparison with the findings obtained from the intervention group, which received chocolate milk and pumpkin. The notable changes in the intervention group, contrasted with the absence of changes in the control group,

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reinforces the hypothesis that the reduction in pain within the intervention group was attributable to the administered intervention, rather than extraneous variables such as temporal effects or the placebo influence of the researcher's attention.

The Effect of Milk Chocolate and Pumpkin (*Curcubta Moschata Duch*) on Reducing Primary Menstrual Pain (Dysmenorrhea) in X-XI Grades Adolescent Girls at SMA Ibrahimy 2 of Salafiyah Syafi'iyah Sukorejo Islamic Boarding School

Table 4 illustrates a notable disparity in the pain scale of primary dysmenorrhea prior to and subsequent to the administration of milk chocolate and pumpkin (*Cucurbita Moschata Duch*). Thirty responders in the intervention group were administered milk chocolate and pumpkin (*Cucurbita Moschata Duch*). The Mant-Whitney test yielded statistical data with a P-value of 0.000 ($p<0.005$). Therefore, it can be concluded that there is an influence of Milk Chocolate and Pumpkin (*Curcubta Moschata Duch*) On Reducing Primary Menstrual Pain (Dysmenorrhea) in X-XI grades Adolescent Girls at SMA Ibrahimy 2. According to previous research on the influence of calcium content from other ingredients, it can reduce menstrual pain. Research conducted on female teenagers at SMA Negeri 8 Malang said that most adolescent girls have low calcium intake and experience menstrual pain (dysmenorrhea) (Alviona , 2018). During menstruation, calcium also plays a very important role in relaxing muscles. If calcium in the muscles decreases, it will cause the muscles to not relax after contractions, thus causing pain (Alviona , 2018). Milk chocolate and pumpkin (curcubita moschata duch) have a fairly high calcium content. The calcium content in milk chocolate is as much as 189mg/100gr (See, et al., 2019), and the calcium content in pumpkin powder is 171.658mg/100gr (Kothari & Sharma, 2020).

According to Table 5, the Wilcoxon test was performed to assess the distribution of differences in the reduction of dysmenorrhea pain scale intensity before and after treatment in the intervention group, yielding a p-value of <0.05 (0.000). In contrast, the control group exhibited a p-value of >0.05 (1.000). There is a notable disparity in the reduction in the pain scale of the intervention group pre-test and post-test compared to the pre-test and post-test of the control group. The constituents of avocado fruit help alleviate menstrual pain in adolescents due to the significant influence of iron, minerals, and other components on the discomfort experienced by teenage females during menstruation.

CONCLUSION

The level of pain was assessed before and after the administration of Milk Chocolate and Pumpkin (*Cucurbita Moschata Duch*) in the intervention group, as well as in the control group before and after receiving instruction on pain management. A disparity exists in the reduction of primary menstrual pain severity (dysmenorrhea) between the intervention group and the control group before and after the intervention. The influence of Milk Chocolate and Pumpkin (*Cucurbita Moschata Duch*) on alleviating primary menstrual pain (dysmenorrhea) in adolescent girls of grades X-XI at SMA Ibrahimy 2 of Salafiyah Syafi'iyah Sukorejo Islamic Boarding School.

Upon analyzing the research findings in the field, the researcher aims to offer recommendations that may benefit institutions and future researchers. The findings of this study are anticipated to benefit both research institutions and those utilized for research, serving as educational resources on non-pharmacological management of

dysmenorrhea. They are also expected to provide a reference for future investigations, particularly in the realm of reproductive health concerning primary dysmenorrhea.

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