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Aromatherapy Lavender to Decrease Dysmenorrhea in Teenage Girls

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Abstract

Dysmenorrhea can bother daily activity so it requires treatment to reduce it. By using aromatherapy lavender, is one of ways to overcome. This research intends to investigate the effect of giving aromatherapy lavender towards the reduction dysmenorrhea scale of teenage girls.This research uses quasy experiment. The independent variable is aromatherapy lavender & the dependent variable is dysmenorrhea pain. This research was conducted in Samiran village, subdistrict of Selo, Boyolali on 28th July–15th August 2020. Populations was 23 respondents. Sampling technique used purposive sampling with 22 respondents. Instruments used was questionnaire, aromatherapy lavender and SOP. Data analysis used was wilcoxon signed rank test. The result of the influence of giving aromatherapy lavender in the control group was moderate pain as much as 31.8% and the mild pain treatment group was 27.3%. Statistical test analysis by using wilcoxon signed rank test got the value $0,003 \leq \alpha \ 0,05$. It showed the effect of giving aromatherapy lavender against reduction of dysmenorrhea scale. The aromatherapy lavender was proven to be able to reduce dysmenorrhea scale towards teenage girls. It was caused by aromatherapy lavender contains linalool dan linalyl asetat which was able to relax the nerve system and strained muscles.

Keywords : Aromatherapy Lavender;Dysmenorrhea

INTRODUCTION

A teenager experiences menstruation every month, there are some teenagers who experience menstrual disorders. One of the disorders of menstruation is dysmenorrhoea. Dysmenorrhoea is divided into two, namely primary and secondary dysmenorrhoea. Primary dysmenorrhea is a gynecological complaint that often occurs in women. This disease is a gynecological disorder that often occurs in adolescents, but its prevalence is difficult to determine, because many cases are not documented (Iacovides et al., 2015). Dysmenorrhoea prevalence data is 15-90% (Ju et al., 2014; Kumar et al, 2016). This disorder is more common in young women aged 17-24 years. And usually occurs 2-3 years after

menarche (Ju et al., 2014). It has been determined that primary dysmenorrhea occurs at ovulation and there is a release of prostaglandi (Bakhtshirin, et al, 2015; Shahr, et al, 2014). Dysmenorrhoea is caused by changes in excessive hormone levels in the body, contractions in the uterine muscles so that the uterine muscles become tense, this occurs due to an increase in the prostagandin hormone. (Safitri and Hardyanti, 2019). During the luteal phase of the menstrual cycle there will be an imbalance between the ratio of the hormones estrogen and progesteoron which causes physical symptoms in the form of sodium retention, fluid retention, edema, and other physical symptoms (Faiqah and Sopiatun, 2015).

Dysmenorrhoea is experienced by many adolescents who are experiencing a stage of growth and development, both physically and psychologically. The unpreparedness of young women in facing development and growth in themselves, results in psychological disorders which eventually lead to physical disorders, for example menstrual disorders such as dysmenorrhoea (Lestari, 2018: 326).

The incidence of dysmenorrhea in the world is very large, in Mexico 32.9% experienced mild pain while 67.1% experienced moderate to severe pain. Meanwhile, based on the results of a student study at the University of Turkey, it showed that 87.8% had dysmenorrhoea and likewise the results of a study on students in Malaysia who reported an overall prevalence of dysmenorrhea amounting to 50.9%. University of Nigeria reported a prevalence of dysmenorrhoea, namely 84.7% (Utari and Ambarwati, 2016).

Based on research conducted in Demak, it was found that 78.3% of students had less knowledge of dysmenorrhea, only 4.3% of students had good knowledge of dysmenorrhoea (Nafiroh, 2013).

The incidence of dysmenorrhoea in adolescent girls in Indonesia is reported to be 107,673 people (64.25%), consisting of 59,671 people (54.89%) who experience primary dysmenorrhoea and 9.36% who experience secondary dysmenorrhoea (Larasati & Alatas, 2016).

The incidence of dysmenorrhoea in Central Java is 56% of the total female adolescents in Central Java of 1,362,756 people (Haryanti, 2017). From the research conducted by Wrisnijati (2019), the prevalence of dysmenorrhoea in Surakarta was 89.8%. In Boyolali Regency, the number of adolescent girls is 35,116 and according to research conducted by Rahayuningsih, et al (2018) who have dysmenorrhoea in the amount of 49.7% and according to Hermayanti, et al (2019) 72.7% of adolescents experience dysmenorrhea.

Based on the results of a preliminary study conducted by researchers at SMK N 1 Selo, Boyolali Regency on February 11, 2020 through filling out a questionnaire to all class XI students, totaling 41 students, it was found that 23 (56%) students experienced dysmenorrhea and 18 (44%) students do not have dysmenorrhoea.

Dysmenorrhoea has an impact on young women, it causes disruption of daily activities. Adolescents who experience dysmenorrhoea during menstruation limit their daily activities, especially learning activities at school. A student has dysmenorrhea, their learning activities at school are disrupted and it is not uncommon for them to miss school. In addition, the quality of life decreases, for example a student with dysmenorrhoea cannot concentrate on learning and learning motivation will decrease due to dysmenorrhea (Ningsih, et al, 2013). In addition, people experiencing dysmenorrhoea will affect the problem of stress, consumption patterns, and exercise. Like anxiety, anger is another form of emotion which is a reaction to stress in a person (Faiqah and Sopiatun, 2015).

Dysmenorrhoea pain management can be divided into 2 categories, namely pharmacological and non-pharmacological treatments. Pharmacological treatment such as taking nonsteroidal anti-inflammatory drugs (NSAIDs) which can inhibit the formation of prostaglandins, such as ibuprofen which reduces cramps. Non-pharmacological pain management can be done for dysmenorrhoea pain, one of which is by using lavender aromatherapy (Pustikawaty, et al, 2016). In addition to aromatherapy can be added with support from family, increasing the coping mechanism of oneself so that the level of pain from dysmenorrhea can be controlled (Ertiana, et al, 2016).

Aromatherapy has traditionally been used as one to reduce the incidence of dysmenorrhoea (Nikjou, et al, 2016). Currently the use of complementary therapies such as lavender oil has special applications in medicine (Bakhtshirin, et al, 2015). Aromatherapy is known as a method of treating diseases by using the aroma of essential oils produced from medicinal plants (Suranto, 2011: 19). One of the famous aromatherapy is lavender aromatherapy, lavender aromatherapy has its main ingredients, namely linalyl acetate and linalool, where linalyl acetate functions to relax and relax the nervous system and muscles that are experiencing tension while linalool acts as a relaxation and sedative so that it can reduce dysmenorrhoea pain (Dewi, 2013). The aroma of lavender therapy can increase alpha waves in the brain and these waves cause a person to relax, lavender oil can cause breathing speed to decrease, blood pressure and anxiety are lower so that it can cause dysmenorrhoea pain to decrease (Atmaja and Fithriana, 2017)

Basically every woman experiences menstruation every month, during menstruation many women experience disorders such as dysmenorrhoea, so as not to interfere with activities and improve the quality of life, it is necessary to make efforts to prevent and alleviate dysmenorrhea which can be done by implementing a healthy lifestyle, maintaining food intake. and reduce fast food, reduce stress and make efforts to relieve dysmenorrhoea with therapies that can be done alone at home by relaxing the mind, resting or sleeping. It is easy and can be done to relieve pain levels during dysmenorrhoea by using lavender aromatherapy because lavender aromatherapy can relax the nervous system and tense muscles so as to calm and relax so that it can reduce the level of dysmenorrhoea pain.

Based on this, the researchers considered it important to do research on the effect of lavender aromatherapy on reducing the level of dysmenorrhea in young women in Samiran Village, Selo District, Boyolali Regency.

METHOD

This research has been declared ethical with number 147 / EC / LPPM / STIKES / KH / VII / 2020. This study used a quasy experimental research design with a non equivalent control group design. 23 girls in Samiran Village, Selo District, Boyolali Regency who experience dysmenorrhoea. The sampling technique used purposive sampling with a total of total of 22 respondents divided into 11 respondents in the control group and 11 respondents in the treatment group. The sample selected is in accordance with the inclusion criteria, namely adolescents who experience regular menstrual cycles and those who experience dysmenorrhoea, as well as the exclusion criteria for respondents who experience endometritis and other reproductive disorders, adolescents allergic to lavender aromatherapy, adolescents who are experiencing olfactory disorders and adolescents who take medication. analgesics or herbs to reduce dysmenorrhoea pain. The research variable was lavender aromatherapy and the dependent variable was dysmenorrhoea pain.

The type of instrument used in this study was the lavender aromatherapy questionnaire and SOP. Before being given the aromatherapy questionnaire, respondents in the treatment group and the control group were given a pain scale sheet to assess dysmenorrhoea pain as a pretest. The treatment group was given lavender aromatherapy. In this way, when experiencing dysmenorrhoea, the respondent is given 2 drops of lavender aromatherapy oil then rubbed it on the back of the inner hand then the respondent is asked to inhale the smell of lavender aromatherapy for 10 minutes. The control group was not given lavender aromatherapy. Then distributed the pain scale sheet

after being given lavender aromatherapy as a posttest to the treatment group and the control group to show menstrual pain felt during menstruation using the pain scale that had been provided previously. The data analysis used was the Wilcoxon signed rank test. The research was conducted in Samiran Village, Selo District, Boyolali Regency on July 28-August 15 2020, the data obtained were coded, tabulated and then analyzed using the Wilcoxon signed rank test statistical test with the help of SPSS. This test is to estimate whether this relationship is significant if the p value is less than 0.05.

RESULTS AND DISCUSSION

Table 1 Distribution of BMI

No	IMT	n	%
1	<18,5	0	0
2	18,5-24,9	12	54
3	25-29,9	9	41
4	≥30	1	5
	Total	22	100

Based on table 1 with a total of 22 respondents, it shows that most of the IMT of young women in Samiran Village, Selo District, Boyolali Regency on July 28-August 15, 2020 were 18.5-24.9 as many as 12 respondents (54%).

Stress Distribution for Young Women in Samiran Village, Selo District, Boyolali Regency

Table 2 The distribution of stress for young women

No	Stress	n	(%)
1	Yes	13	59
2	Not	9	41
	Total	22	100

Based on table 2 with a total of 22 respondents, it shows that most of the young women in Samiran Village, Selo District, Boyolali Regency, on July 28-August 15, 2020 were experiencing stress as many as 13 respondents (59%).

Analyzing the data using a non-parametric test, namely by using the Wilcoxon sign rank test to determine the effect of lavender aromatherapy on reducing the level of dysmenorrhoea in female adolescents in Samiran Village, Selo District, Boyolali Regency.

Pre Scale in the Treatment Group and Control Group

Table 3 Frequency Distribution of the Dysmenorrhoea Scale Before Giving Lavender Aromatherapy to the Treatment Group and the Control Group

| Dysmenor rhoea Pain | Pain Scale | | | | | | Total | |
| | Weight Controlled | | Moderate | | mild | | | |
	n	%	n	%	n	%	n	%
Control group	1	9	7	64	3	27	11	100
Treatment group	1	9	9	82	1	9	11	100

Table 3 shows that the dysmenorrhoea pain scale in the control group mostly experienced moderate dysmenorrhea as many as 7 people (64%) and in the treatment group before giving lavender aromatherapy almost all experienced moderate dysmenorrhoea as many as 9 respondents (82%).

Based on the results of the pain scale study before giving lavender aromatherapy using the NRS (Numeric Rate Scale) pain measurement to young women in Samiran Village, Selo District, Boyolali Regency, it can be seen from respondents who belong to the treatment group with an average pain of 5.09 Intense pain makes you unfocused and communication is disturbed so that it can interfere with learning concentration and activities. In the control group, the average pain was 4.64, intense pain made you unfocused and communication was disturbed.

From the results of the study, it was found that the pain felt by respondents was moderate pain, the objective sign above is in line with the research conducted by Pustikawaty (2016) on a scale of 4-6

(moderate pain) the characteristics felt by respondents are cramps in the lower abdomen, nausea, disturbed activity, difficulty or difficulty concentrating.

The results of the study were based on the age of the respondents, the mean age was 15.73. With the largest number of people being 15 years old, the youngest was 14 years old and the oldest was 17 years old. The results of this study indicate that the younger the age is more at risk of experiencing dysmenorrhoea due to new menstruation so the cervix is still narrow compared to old age. This is in line with the opinion of Okoro (2013) that the peak of dysmenorrhoea is in the age range of 15-25 years and will decrease after that age.

The results of the study based on menarche, the average teenage girl experiencing menarche was 12.68. With the most menarche age was 14 years old with an interpretation of 9 respondents (40.9%). The results of this study indicate that menstrual pain experienced by young women with different levels of pain and menarche itself can affect the occurrence of dysmenorrhea, but in this study the respondents' age of menarche was still within normal limits.

From the research results, it was found that when menstrual pain occurred in all respondents at the beginning of menstruation, namely 22 respondents (100%). From these results, it is explained that dysmenorrhoea often occurs during menstruation, namely on days 1 to 3. This is in line with Kristina's opinion (2010) that primary menstrual pain sufferers are more common during the first menstruation and increase on the second and third days due to increased progesterone production.

According to the theory that dysmenorrhoea occurs during the first menstruation and increases on the second and third days because on days 1-3 the prostaglandins are released the more prostaglandin production is excessive, then the pain arises. In addition, continuous uterine contractions also cause the blood supply to the uterus to temporarily stop, resulting in dysmenorrhoea (Ernawati, 2010).

From the results of this study, the length of menstruation in the respondents was mostly 4-7 days as many as 17 respondents (77.3%) and a small proportion> 7 days as many as 5 respondents (22.7%). From the results above, it can be seen that the length of menstruation is a risk factor for primary dysmenorrhoea.

A chemical called prostaglandin has been shown to increase dysmenorrhoea. Prostaglandins are one of the chemical compounds in the blood that regulate some uterine activities. If the levels of protaglandins are excess, the uterine contractions during menstruation increase, causing intense pain. Pain can increase due to stress, lack of exercise and unbalanced nutrition, other causes of extreme pain are diseases such as endometriosis and uterine tumors (Marni, 2013).

The results showed that most of the respondents with BMI 18.5-24.9 (Normal) were 12 respondents (54.5%) and a small proportion of BMI 25-29.9 (Over Weight) were 9 respondents (40.9%). From the results above, it can be seen that BMI is a risk factor for primary dysmenorrhoea. This is in line with Wahyuni's (2018) opinion, that overweight can also lead to dysmenorrhea because there is fatty tissue in the female reproductive organs, so that blood that should flow during the menstrual process is disrupted and causes pain during menstruation.

From the research results, it was found that most of the respondents experienced stress as many as 13 respondents (59.1%) and 9 respondents (40.9%) who did not experience stress. From the results above, it can be seen that stress is a risk factor for primary dysmenorrhoea. This is in line with the opinion of Pustikawaty (2016) where the higher the level of stress experienced by a person, the higher the menstrual pain they experience. A person who

experiences stress, the body will overproduce the hormones estrogen and adrenaline. When the hormone estrogen is in excess in the body, it can cause an increase in excessive uterine contractions, resulting in menstrual pain. While the adrenaline hormone increases in the body, it will cause the body's muscles to become tense, including the uterine muscles, which will cause menstrual pain.

According to Wahyuni (2018), the risk factors that influence dysmenorrhoea are nutritional status, age of menarche, and family history of dysmenorrhoea and obesity.

From the description above, the researcher argues that the risk factors for primary dysmenorrhea in young women in Samiran Village, Selo District, Boyolali Regency are age, age of menarche, length of menstruation, amount of blood during menstruation, BMI and stress.

Post Scale in the Treatment Group and Control Group

Table 4 Frequency Distribution of Dysmenorrhoea Scale After Giving Lavender Aromatherapy to the Treatment Group and Control Group of Young Women in Samiran Village, Selo District, Boyolali Regency on 28 July-15 August 2020

Dysmenorrhoea Pain	Pain Scale								Total	
	Contrasted Weightol		Moderate		Mild		No Pain			
	n	%	n	%	n	%	n	%	n	%
Control group	2	18	7	64	2	18	0	0	11	100
Treatment group	0	0	1	9	6	55	4	36	11	100

Table 4 shows that the dysmenorrhoea pain scale in the control group mostly experienced moderate dysmenorrhea as many as 7 people (64%) and in the treatment group after giving lavender aromatherapy, most of them experienced mild dysmenorrhoea as many as 6 respondents (55%).

Based on the results of research on 11 respondents in the lavender aromatherapy treatment group before being given treatment, the average pain scale was 5.09 and after being given lavender aromatherapy the average pain scale decreased to 1.45. This is in line with Pustikawaty (2016) explaining that on a 1-3 pain scale it is categorized as mild pain with the characteristics of feeling cramps in the lower abdomen, can still be held, can still be active, can still concentrate on learning.

Various methods are used to reduce primary dysmenorrhoea, namely pharmacological and non-pharmacological therapies. One of the non-pharmacological techniques is giving lavender aromatherapy. Giving lavender aromatherapy does not require a lot of funds and is easy to get because at this time aromatherapy is widely traded both online and in stores around us. The use of lavender aromatherapy can provide a relaxing effect and reduce menstrual pain. According to Dewi (2013), the main content of lavender flowers is linalyl acetate and linalool, where linalyl acetate functions to relax and relax the nervous system of muscles that are experiencing tension while linalool acts as relaxation and sedative so that it can reduce menstrual pain.

Whereas in the control group the results obtained from 11 respondents obtained an average pain scale of 4.64 and after 10 minutes the average pain scale was 5.27. These changes indicate that without lavender aromatherapy can affect the pain scale changes in adolescent girls with primary dysmenorrhoea. This is in line with Yunianingrum (2018) explaining that the 4.77 pain scale is categorized as moderate pain with the characteristics felt by respondents are cramps in the lower abdomen, nausea, disturbed activity, difficulty or difficulty concentrating.

In the control group after being given lavender aromatherapy, there were 4 respondents who experienced an increase in pain even though it only increased slightly on the pain scale, this was because the previous respondents would be used as the treatment group but did not like the smell of lavender aromatherapy so that they felt bad. When someone is stressed, the body will overproduce the hormones estrogen and adrenaline. Where when the hormone estrogen is excessive in the body it can cause an increase in excessive uterine contractions, resulting in menstrual pain. Meanwhile, when the adrenaline hormone increases in the body it will cause the body's muscles to become tense, including muscles

Uterus so that it will cause pain during menstruation. To reduce stress and the level of dysmenorrhea, the use of lavender aromatherapy is very appropriate because the content of lavender aromatherapy can make respondents relax and calm so that it can reduce the level of dysmenorrhea (Pustikawaty, 2016).

From the results of the study, it was found that pain can increase if no intervention is given due to the increased production of prostaglandins which can cause stronger muscle contraction of the ahim. In adolescents with primary menstrual pain will find an increase in prostaglandins by the endometrium with the most release during menstruation in the first 48 hours and is related to the severity of the symptoms that occur. Before menstruation, prostaglandins increase and once menstruation occurs, prostaglandin levels decrease. Decreased prostaglandin production results in pain tends to decrease after a few days of menstruation (Ariningtyas, 2019).

Based on the results of this study, the researchers argue that after using lavender aromatherapy during menstruation, the dysmenorrhoea level of the respondents will decrease compared to those not given lavender aromatherapy, because lavender aromatherapy causes a person's body to become more relaxed and calm so that dysmenorrhoea pain is reduced and is not felt again.

Based on table 5, it is found that the difference in the effect of lavender aromatherapy on decreasing the level of dysmenorrhoea for young women in Samiran Village, Selo District, Boyolali Regency, in the treatment group after being given lavender aromatherapy, almost half of the girls experienced mild pain with 6 respondents (27.3%) and a small proportion with 4 respondents. did not experience menstrual pain (18.2%). Meanwhile, in the control group who were not given lavender aromatherapy, almost half of the young women experienced moderate pain, namely 7 respondents (31.8%).

Based on the cross tabulation in table , it can be seen that the results using the Wilcoxon Sign Rank Test statistical test formula significant level α 5% = 0.05, it is obtained Z = -2.971 and the value of Z tabel = -1.511 then -2.971 <-1.511. While the p value is 0.003 <0.05, this means, which means that there is an effect of lavender aromatherapy on reducing the level of dysmenorrhoea

Table 5 The Effect of Lavender Aromatherapy on the Treatment Group and Control

Dysmenorrhoea Pain	Pain Scale								Total	
	Contrasted Weightol		Moderate		Mild		No Pain			
	n	%	n	%	n	%	n	%	n	%
Control group	2	9,1	7	31,8	2	9,1	0	0	11	50
Treatment group	0	0	1	4,5	6	27,3	4	18,2	11	50
Total	2	9,1	8	36,3	8	36,4	4	18,2	22	100

Based on the results of the pain scale output in the treatment group, the negative ranks or the difference (negative) between the pretest and posttest were N 11, Mean Rank 6.00 and Sum Of Ranks 66.00. This value indicates a decrease in the pretest and posttest dysmenorrhoea scale. On the positive ranks or the difference (positive) between the pretest and posttest is 0, be it the value of N, Mean Rank, or Sum Of Rank. A value of 0 indicates that there is no increase in menstrual pain on the pretest or posttest measurements.

Based on the output of the Wilcoxon Sign Rank Test statistical test in the treatment group, it shows the value of p = 0.003 <α = 0.05, this means that H0 is rejected. H1 is accepted, meaning that there is a significant influence between the pain scale before and after giving lavender aromatherapy.

Whereas in the control group the results obtained in the negative ranks or the difference (negative) between the pretest and posttest were N 1, that is, 1 respondent experienced a decrease in the pain scale, the Mean Rank was 2.00 and the Sum Of Ranks was 2.00. This value indicates a decrease in the pretest and posttest cementorea scale although only slightly. On the positive ranks or the difference (positive) between the pretest and posttest is the value of N 4, that is, there are 4 respondents who experienced an increase in the pain scale, Mean Rank 3.25 and Sum Of Rank

13.00. This value indicates an increase in menstrual pain in the pretest and posttest measurements.

Based on the output of the Wilcoxon Sign Rank Test statistical test in the control group, it shows the value of p = 0.131> α = 0.05, this means that H0 is accepted, H1 is rejected, meaning that there is no significant effect between the pain scale measured in the pretest and posttest on young women in Samiran Village District Selo, Boyolali Regency. These results indicate that lavender aromatherapy has a greater contribution in reducing the pain scale than without lavender aromatherapy.

This result is reinforced by the results of other studies conducted by Pustikawaty, et al. (2016), it is known that before giving lavender aromatherapy, 25% experienced mild pain, 68.8% experienced moderate pain and 6.3% experienced severe pain. Then after giving lavender aromatherapy the respondents were 18.8% painless, 75% mild pain and 6.3% moderate pain with a p-value = 0.000. Meanwhile, research conducted by Zulvina (2017) showed that the average pain scale before being given lavender aromatherapy was 3.69 and the average pain scale after being given lavender aromatherapy was 2.06. After being given lavender aromatherapy, there was a decrease in pain by 1.63 with p-value = 0.000 α = 0.05.

Research conducted by Hidayati, et al (2019) showed that the average pain scale before treatment was 5.48 then reduced to 2.61 after being

given lavender aromatherapy with a p-value of 0.000 α = (0.05). While the results of research conducted by Ariningtyas, et al. (2019) showed that there was a significant difference in the level of pain in the treatment group before and after being given lavender aromatherapy with a p-value = 0.001 meaning (p <0.05) and research conducted by Vitrianingsih (2019) showed that the mean the pain scale before being given lavender aromatherapy was 4.70 then there was a decrease in the pain scale after being given lavender aromatherapy to 3.33 with a p-value of 0.000 <0.05.

The effect of lavender aromatherapy and without lavender aromatherapy occurs because lavender aromatherapy contains the main ingredients, namely linalyl acetate and linalool. Meanwhile, if no treatment is given at all, the pain will remain or increase if no intervention is given due to the increased production of prostaglandins which can cause stronger uterine muscle contractions. In adolescents with primary menstrual pain will find an increase in prostaglandins by the endometrium with the most release during menstruation in the first 48 hours and is related to the severity of the symptoms that occur. Before menstruation, prostaglandins increase and once menstruation occurs, prostaglandin levels decrease. Decreased prostaglandin production results in pain tends to decrease after a few days of menstruation (Ariningtyas, 2019).

From the research results, it was found that most of the respondents experienced stress as many as 13 respondents (59.1%) and 9 respondents (40.9%) who did not experience stress. From the results above, it can be seen that stress is a risk factor for primary dysmenorrhoea. From the results of this study, most of the causes of dysmenorrhoea in adolescents are stress due to various problems experienced by respondents such as stress due to

many tasks during this pandemic and stress triggered by personal problems of respondents. This is in line with Pustikawaty (2016) which explains that the content of linalyl acetate and linalool in lavender is able to relax and relax the work system of tense nerves and muscles (Dewi, 2013). This is in accordance with the theoretical review that has been previously disclosed regarding the content contained in lavender aromatherapy. Aromatherapy, which is sedative in nature, will provide a calming effect that can prevent sympathetic nervous stimulation from stress that is often experienced by young girls due to daily activities.

Based on the results above, the researcher argues that there is a significant effect between the provision of lavender aromatherapy and those not given lavender aromatherapy to the reduction of dysmenorrhoea levels in young women in Samiran Village, Selo District, Boyolali Regency.

CONCLUSION

There is a significant effect of giving lavender aromatherapy to changes in the pain scale in adolescent girls. Lavender aromatherapy has been shown to reduce dysmenorrhoea levels in young women. This is because lavender aromatherapy contains linalool and linalyl acetate which can relax and relax the nervous system and tense muscles so as to reduce the level of dysmenorrhoea.

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