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The Influence of Combination of Warm Compression and Chocolate Against Menstrual Pain Reduction (Dysmenorrhea) In Teens In SMP Negeri 1 Bangkalan

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Abstrak

Permasalahan kesehatan reproduksi remaja saat ini masih menjadi masalah yang perlu mendapat perhatian. Banyak wanita yang mengalami ketidaknyamanan pada awitan menstruasi salah satunya yaitu dysmenorrhea. Penelitian ini bertujuan untuk mengetahuipengaruh kombinasi kompres hangat dan cokelatterhadap penurunannyeri mestruasi (dysmenorrhea) pada remaja di SMP Negeri 1 Bangkalan. Penelitian ini menggunakan metode Quasi Eksperiment dengan menggunakan control time series design. Populasi dalam penelitian ini adalah siswi SMP Negeri 1 Bangkalan yang mengalami dysmenorrhea. Tehnik pengambilan sampel penelitian ini dengan menggunakan simple random sampling dengan kriteria inklusi dan ekslusi sebanyak 54 responden yang terbagi menjadi dua kelompok dengan masing-masing kelompok 27 responden. Analisis data dilakukan dengan uji chi square dan regeresi logistik. Hasil penelitian menunjukkan terdapat pengaruh kombinasi kompres hangat dan cokelat terhadap penurunan nyeri menstruasi (p-value 0,050). Selain itu terdapat faktor lain yang mempengaruhi penurunan nyeri menstruasi yaitu IMT (p-value 0,032). Disarankan kepada remaja yang mengalami nyeri menstruasi untuk memeriksakan kondisi kesehatan organ reproduksinya jika masih terjadi nyeri selama menstruasi.

Katakunci :*kombinasi kompres hangat dan cokelat; nyeri menstruasi; remaja*

Abstract

The problem of adolescent reproduction health is still a problem that needs attention. Many women who experience discomfort in the onset of menstruation, one of them is dysmenorrhea. This study aims to find out the effect of a combination of warm compress and chocolate to decrease menstruation pain (dysmenorrhea) on raja in SMP Negeri 1 Bangkalan. This research uses a Quasi Experiment method by using a control time-series design. The population in this study were female students of SMP Negeri 1 Bangkalan who had dysmenorrhea. The technique of sampling this research was by using simple random sampling with inclusion and exclusion criteria of 54 respondents divided into two groups with each group of 27 respondents. Data analysis was performed with chi-square test and logistic regression. The results showed there was an influence of the combination of warm and chocolate compresses to menstrual pain decrease (p-value 0,050). Besides, other factors affect the decrease in menstrual pain that is IMT (p-value 0.032). It is advisable to teenagers who experience menstrual pain to check the health condition of their reproductive organs if pain still occurs during menstruation.

Keywords : combination of warm compresses and chocolate; menstruation pain; teens

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INTRODUCTION

The problem of adolescent reproduction health is still a problem that needs attention. Understanding of menstruation is needed to encourage teenagers who experience menstrual disorders to know and take the best attitude about reproduction problems they experience (1).

Many women who experience discomfort in the onset of menstruation include *dysmenorrhea,* but the level of discomfort of *dysmenorrhea is* much higher, with pain often felt in the lower back radiating down to the upper limbs (2). In adult women, pain great men who come suddenly during menstruation after in the previous years have never felt pain should be aware that the menstrual pain that leads to the alleged endometriosis. (3).

According to data from WHO, there was an incidence of 1,769,425 people (90%) of women *dysmenorrhea* with 10-15% having severe *dyssorrhea*. In Indonesia the incidence of *dysmenorrhea* of 107,673 people (64.25%), consisting of 59,671 people (54.89%) experienced primary *dysmenorrhoea* and 9,496 inhabitants (9.36%) experienced *dysmenorrhea* secondary (1). In East Java, the number of young women who productive that is aged 10-24 years is 56.598 inhabitants. While those who have *dysmenorrhea* and come to the midwifery section of 1.31% (4). Based on the results of a preliminary study in SMP 1 Bangkalan, obtained 68,75 % of grade VIII students have *dysmenorrhea.*

Based on the background above, the researchers are interested to research the effect of giving a combination of warm compresses and chocolate to the decrease of menstrual pain (*dysmenorrhea*) in adolescents. So it can provide information about other benefits of chocolate and warm compresses as an alternative treatment of *dysmenorrhea in* addition to drugs. The purpose of this study is to know the effect of a combination of warm compress and chocolate to decline pain menstruate (*dysmenorrhea*) in SMP Negeri 1 Bangkalan.

MATERIALS AND METHODS

This research used primary data by using an observation sheet and questionnaire in September-October 2017. This research used *a Quasi Experiment* method by using *a control time-series design.* The sampling technique used simple random sampling so that the sample of 54 female students with the menstrual pain following the inclusion and exclusion criteria were divided into two groups with 27 respondents respectively. The dependent variable in this research is menstrual pain while the independent variable was warm compress and chocolate, age of menarche, IMT, family history, complaint during menstruation and history of the intensity of menstrual pain.

Data analysis using SPSS using three stages. The first was a univariate analysis to know the frequency distribution of each variable to describe the data. Both bivariates analyzed to determine the relationship between the dependent variable with the independent variable in each group. The test used was chi-square test. The three multivariate analyzed included bivariate variables having $p < 0.25$ values into the model and logistic regression testing with $p < 0.05$. The study was approved by the Health Research Ethics Committee of the Healthcare Polytechnic of Kemenkes Yogyakarta on 03 October 2017 with No.LB.01.01 / KE-01 / XLVIII / 856/2017.

RESULTS AND DISCUSSION

Univariate analysis

Based on table 1 it can be seen that the characteristics of menarche age, body mass index (BMI) and complaints when menstrual pain respondents in this study are homogeneous with p> 0,05. So it can be concluded that all respondents in this study had age menarche, IMT, and complaints when the same menstrual pain. So that a given that kind of thing can give influence to the respondent.

From the above table it is known that the pain in the control group's post test still has severe pain of 7.4% compared with the post test pain in the experimental group.

Bivariate analysis. Bivariate analysis was used to determine the relationship between treatment with decreased menstrual pain. statistical test using chui square.

Statistic chi-square tested resulted in a probability of 0.036 (<0.05) so it can be concluded that there was a treatment group related to the decrease of menstrual pain.

Before performing a multivariate test, it was necessary to determine the variables that enter the criteria as a candidate model that is the variable with the value of p <0.25 and the value of CI above 1 or below 1. Next look at the possibility of interaction variable on the candidate variables. For variables that have a value of p <0.25 then these variables can be included in the multivariate model (5)

From the analysis, results can be seen that BMI has a relationship in the reduction of menstrual pain with p-value 0.07 <0.25. So it can proceed for multivariate analysis.

Table 1. Characteristics of Age-Based Percentage, Body Age Index And Menarche Age And Homogeneity At SMPN 1 Bangkalan

Variables	Group				Homogeneity
	Experiment		Control		
	n	%	n	%	
Age					0,000 *
11-13 years	2	7.4	7	25.9	
14-16 years old	15	92.6	20	74.1	
Age of menarche					0.402 *
<12 years	11	40.7	8	29.6	
≥12 years	16	59.3	19	70.4	
IMT					0.256 *
Thin	6	22.2	15	55.6	
Fat	3	11.1	2	7.4	
Ideal	18	66.7	10	37	
Family history					0.002 *
There is a history	21	77.8	12	44.4	
No history	6	22.2	15	55.6	
History of the intensity of menstrual pain					0.007 *
Often	11	40.7	6	22.2	
Sometimes	16	59.3	21	77.8	
Complaints during menstrual pain					0.590 *
Abdominal pain	13	48.1	14	51.9	
Cramps	3	11.1	3	18.5	
Back pain	9	33.3	9	22.2	
nausea	2	7.4	2	7.4	

* Levene statistic p> 0.05

Table 2. Characteristics of Pain Respondents Before And After Treatment In SMPN Negeri 1 Bangkalan

Group	*Dysmenorrhea*											
	Pre test						Post test					
	Light		Medium		Weight		Light		Medium		Weight	
	N	%	N	%	N	%	N	%	N	%	N	%
Experiment	18	66.7	8	29.6	1	3.7	26	96.3	1	3.7	-	-
Control	16	59.3	8	29.6	3	11.1	24	88.9	1	3.7	2	7.4

Table 3. Relationship Treatment Group Against Menstrual Pain Reduction In SMPN 1 Bangkalan

Group	Menstrual Pain				Sig.
	Pain Reduced		Permanent Pain		
	N	%	N	%	
Experiment	25	92.6	2	7.4	0.036
Control	19	70.4	8	29.6	

* *chi-square p <0.05*

Table 4. Relationship of External Variables Against Menstrual Pain In SMPN 1 Bangkalan

Variables	Menstrual Pain				Sig.
	Pain drops		Pain fixed		
	N	%	N	%	
Age					
11-13 years	8	88.9	1	11.1	0.531
14-16 years old	36	80	9	20	
Age of menarche					
<12 years	16	84.2	3	15.8	0.704 *
≥12 years	28	80	7	20	
IMT					
Thin	14	66.7	7	33.3	0.070 *
Fat	5	89.3	3	10.7	
Ideal	25	100	0	0	
Family history					
There is a history	27	81.8	6	18.2	0.936 *
No history	17	81	4	19	

* *p-value <0.25*

Multivariate analysis

Multivariate analysis in this study used logistic regression because the data was not normally distributed. This analysis aims to determine what factors have a significant effect on the reduction of pain in respondents. The results of the analysis are as follows:

In logistic regression testing, the variable with P value (Sig) ≤ 0.05 means that the variable has a significant effect on the decrease of menstrual pain. From table 5.5 it is known that indigo I sig gives a combination of warm compresses and chocolate p 0,050 ≤ α and IMT pig value p 0,032 <0,05 so it can be concluded that there is the influence of giving warm and brown compress and IMT to decrease menstrual pain whereas BMI affects decreasing menstrual pain as an external variable.

The results of this study indicated that some respondents experience menarche at age ≥ 12 years while the age of respondents is mostly in the range 14-16 years which means the respondent is a middle adolescent and is in the period 1-2 years after the first menstruation. In adolescents who were still 1-2 years old, menstruating the cervix was different from women who have matured. In older women age, menstruation more often so that the cervix widens, so that in old age dysmenorrhea incident rarely found. Smeltzer (2001) mentions the effect of age on the perception of pain and pain tolerance is not widely known based on reports of pain and pain relief. This is similar to that of Karim (2015) who found the average female adolescent in West Jakarta menarche at the age of 12-13 years. In his study showed that young women who have normal or early menarche tend to have mild *dysmenorrhea*, whereas slow *dysmenorrhea* being concluded.

In the study of respondents who had normal BMI persisted dysmenorrhea. This is due not only to the nutritional status that affects dysmenorrhea but can be influenced by other factors such as menarche age, family history and 1-2 years after menarche. Besides, students with low pain resistance despite only mild or mild illness will feel more pain than female students with high pain resistance. This supported the research of Angel (2015) to obtain results that

Table 5 . The Influence Of External Variables And Treatment Of Menstrual Pain In Men In The SMPN 1 Bangkalan

Variables	B	Sig.	Exp. (B)	95.0% CIfor EXP (B)	
				Upper	Lower
Warm and Chocolate Compress	1,661	0.050	5,263	1,000	27.690
IMT	-1,541	0.032	0.214	.052	.877

* P <0.05

there is no relationship of nutritional status with the incidence of primary dysmenorrhea.

Complaints experienced by respondents during dysmenorrhea in this study are abdominal pain, cramps, backache and nausea. This is in accordance with the theory of Manuaba (2010) which mentions menstruation arose, piercing. Based on the intensity of pain, 59.3% of respondents in the experimental group and 77.8% of respondents in the control group experienced pain occasionally. The pain experienced is lost during dysmenorrhea. This is similar to the results of Karim's (2015) study that found dysmenorrhea began to occur 24 hours before menstrual bleeding and can last for 24-36 hours although the weight only lasts for the first 24 hours during menstrual bleeding. In his research, Karim mentioned more than 50% of respondents experienced pain <of 2 days.

The scale of menstrual pain after being given warm compresses and chocolate on experimental group respondents showed the highest pain felt by respondents at the time of dysmenorrhea was mild pain. After giving warm and chocolate compresses, respondents who experienced mild pain increased. This was higher when compared to the control group. This was similar to the research of Karim (2015) who found that the incidence of dysmenorrhea in young women in West Jakarta is very high, especially mild dysmenorrhea

From the result of research got a result that there is a correlation of giving warm and brown compress to decrease of menstruation pain. This is following the result of research of Hapsari (2013) which found that there is a decrease in intensity of dysmenorrhea pain by giving chocolate. In research Ruriyani (2011) found that warm compresses can reduce menstrual pain to light pain 70% and moderate pain 30%. So that the combination of two simple methods can reduce pain, so that on the second day of menstruation there are 37% of respondents who did not experience pain and continue to increase on the third day with 93% of respondents are not painful and only7% experience mild pain.

From the analysis, it is known that giving a combination of warm and chocolate compresses 20 grams a day for 2 weeks before menstruation 5 times more effectively reduce menstrual pain. This was different from research Susilowati (2014) and Hanan (2015) who use 100 grams of chocolate managed to reduce pain 2 points, While research Wulandari (2017) states that consumption of 80 grams of chocolate a day can reduce symptoms of premenstrual syndrome. This was different so warm compresses and 20 grams of chocolate is expected to be an alternative treatment of non-pharmacological dysmenorrhea in young women. IMT as an external variable has a significant effect on menstrual pain. With an ideal IMT, respondents still experience menstrual pain. It should be noted that good nutritional status can minimize the incidence of menstrual pain. so it is expected that teenagers and women can meet and pay attention to nutritional intake.

CONCLUSION AND RECOMMENDATION

There is a significant influence of IMT as an external variable to decrease menstrual pain with value p = 0,032. There was a significant effect of

the combination of warm and brown compresses on the decrease of menstrual pain with p = 0,050. To thank (a) all students of SMPN 1 Bangkalan who have been willing to be respondents and teachers of Counseling Teachers who have assisted the researcher in collecting data, all parties who have assisted the completion of this research.

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