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WHITE TURMERIC DRINK (Curcuma Zedoaria) TO DISMENORHEA IN ADOLESCENT GIRLS

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A B S T R A C T

Teenagers who experience dysmenorrhea are caused by uterine muscle spasms, dysmenorrhea is a normal condition that occurs in women who are experiencing menstruation, pain dysmenorrhea appears can be influenced by psychological factors and physical factors such as stress and tiredness, because teenagers are stressed, the body will produce adrenaline, estrogen, progesterone and prostaglandin hormones that are excessive. Estrogen can cause an increase in excessive uterine contractions while progesterone inhibits contraction. This excessive contraction causes pain during menstruation. One of the non-pharmacological treatments for dysmenorrhea is by giving white turmeric drink. This study aims to look at the effect of giving white turmeric juice drinks to dysmenorrhea in adolescents of class VIII at SMPN 4 Sarolangun. This type of research is an experimental study with a quasi-experimental design with a research design of one group pretest-posttest. The population was all girls in class VIII as many as 41 people. The number of samples obtained is as many as 8 people. Collection data through question and answer and pain measurement used Wong faces pain rating scale and numeral rating scale (NRS). Univariate analysis showed the average value of the Pre-test is 6.88 and the average value of the Post Test is 4.13. bivariate using Dependent t-Test obtained p-Value 0,000 (p <0.05) means Ha accepted. So it was concluded that there was an effect of giving white turmeric juice drinks to dysmenorrhea in adolescent girls at Sarolangun Junior High School 4. It is expected that adolescents will apply intervention as a way to deal with the pain of dysmenorrhea during menstruation.

I. INTRODUCTION

adolescent is a human resource who has great potential in efforts to develop the quality of the nation. The 2012 world population report states that the world's population continues to grow and has reached 7 billion. As many as 1.2 billion people in the world or nearly 1 in 5 people in the world are aged 10-19 years. The results of the Indonesian population census (2010) show that the number of adolescents is quite large, reaching 63.4 million (26.7% of the total population). Indonesian adolescents face changes that occur, such as hormonal, physical, psychological and social changes, where this condition is called puberty. One of the signs of puberty in young girls is the occurrence of menstruation or menstruation (Batubara, 2012).

Menstruation is the process of releasing blood from the uterus through the vagina every month during the fertile age. During menstruation, the problem experienced by most women is discomfort / pain called dysmenorrhoea (Salsa, 2017). Dysmenorrhea is lower abdominal pain that occurs during menstruation, sometimes extending to the waist, lower back and thighs. The reason is the excessive amount of prostaglandins from F2a during menstruation, which stimulates uterine hyperactivity and the occurrence of uterine muscle spasms (Ayu Wulandari, et al. 2018).

According to WHO (2012), an incidence of 1,769,425 women (90%) 10–15% experienced severe dysmenorrhea. The incidence of menstrual pain in the world is quite large, on average more than 50% of women in every country experience menstrual pain. The results of a study conducted in the United States in 2012 to determine the incidence of primary dysmenorrhea in women aged 12-17 years was 59.7% with 49% mild dysmenorrhea, 37% moderate dysmenorrhea, and 12% severe dysmenorrhea. The incidence of dysmenorrhea in Swedish women aged 19 years is 72.42% (Shinta et al. 2014)

Dysmenorrhea is an adverse condition for many women and has a major impact on health-related quality of life. As a result, dysmenorrhea is also responsible for significant economic losses due to drug costs, medical care and decreased productivity (Larasati, et al. 2016). Dysmenorrhea causes a very unpleasant feeling that causes irritability, irritability, nausea, vomiting, weight loss, flatulence, back pain, headache, acne, tension, lethargy and despression. Usually these symptoms come the day before menstruation and last for 2 days until the end of the menstrual period (Eli, 2012). Adolescent dysmenorrhea causes disruption of learning activities at school due to not being able to concentrate on learning and learning motivation will decrease because of dysmenorrhea that is felt in the teaching and learning process (Mia, 2015).

White turmeric (Curcuma zedoria roscoe) is included in the Zingiberaceae family, is a type of medicinal plant of turmeric whose use is one of which is to reduce pain in dysmenorrhea.

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Data according to the IOT (Traditional Medicine Industry) of 4,187, there are 40% of people using white turmeric as treatment and 10% (Dede, et al. 2016). White turmeric is rich in chemicals such as tannins, curcumin, starch, sugar, essential oils, resins, sponins, flavonoids, and toxic proteins that can inhibit cancer cell proliferation (Aulia, 2017).

Based on field observations at SMP N 4 Sarolangun, it was found that many young women experience dysmenorrhea during menstruation and have not been able to find solutions that are safe and have no effect on future health such as still using drugs to treat them, and dysmenorrhea also interferes with student learning activities. Meanwhile, the school gives special attention to this problem because students often permit school when experiencing dysmenorrhea. The school hopes that there is a solution and it will not have any bad effects in the future, from interviews in the field of 41 class VIII students of SMP N 4 Sarolangun, almost 80% still use drugs to treat dysmenorrhea and 20% do not use drugs. So it is necessary to do a study so that the problem of dysmenorrhea in class VIII SMP N 4 Sarolangun can be overcome with herbal ingredients that can be found around us and do not have any bad effects in the future for health. Based on information from the Pelawan Community Health Center officers who said that there were 20% of students who experienced menstrual bleeding because they could not bear the pain.

II. METHODS

This was an quasi experimental study with *one group Pretest Posttest*. This study was carried out from September to October 2019. The study population comprised newborn baby in BPM Rita.

Population of this study was all student in 3rd grade in SMP N 4 Sarolangun. Samples were 8 adolescent who experience dysmenorrhea whom taken by slovin sampling technique. In this design the samples was carried out into a groups. Pain scale is mas

III. RESULT

Table 3.1 hemoglobin level in intervention and control group

Haemoglobin	N	Mean	Standard deviation	Min-Max
Intervention	8	18.5	1,06	16,6-19,6
control	8	15.12	1,13	13.8-17.0

Regarding to hemoglobin level, it was found that; the average of hemoglobin level in intervention group was 18.5 and 15.12 in control group.

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Table 4.2 hematocrit level in intervention and control group

hematocrit	N	Mean	Standard deviation	Min-Max
Intervention	8	55.2	5.25	49,6-63.5
control	8	46,06	3,07	42.1-50,7

Regarding to hematocrit level, it was found that; the average of haemoglobin level in intervention group was 55.2 and 46.06 in control group.

Table 4.3 Effect of delayed umbilical cord on improving hemoglobin level

Hemoglobin level	n	mean	P-Value
intervention	8	18,05	0,000
control	8	15.12	

Average ofhemoglobin level in control group is 15.12 while the average of hemoglobin level in intervention group is 18,05, Dependent T-test results p value of 0.000 <0.05 indicates that there was delayed umbilical cord clamping effect on increasing hemoglobin level in newborn

Table 44 Effect of delayed umbilical cord on improving hematoctit level

Hematocrit level	n	mean	P-Value
intervention	8	55.2	0,001
control	8	46,06	

Average of hematocrit level in control group is 46.06 while the average of hematocrit level in intervention group is 55.2, Dependent T-test results p value of 0.001 <0.05 indicates that there was delayed umbilical cord clamping effect on increasing hematocrit level in newborn

IV. DISCUSSION

Hemoglobin is a red blood molecule or pigment in erythrocytes (red blood cells) which bind and carry oxygen from the lungs to the tissues and also CO2 from the tissues to the lungs. The quality of blood and the red blood are affected by hemoglobin levels. Hemoglobin level is influenced by several things including age, gender, neighborhood (height of residence), and so on. Infants who have sufficient levels of hemoglobin, then the optimal level of oxygenation and provides a source of Fe which is very beneficial for babies. The brain needs a lot of iron because

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of its high oxidation metabolism compared to other organs. Lack of iron levels in the post-natal period causes mental and motor disorders that will persist into adulthood (Irsa, 2014).

The delay time the umbilical cord clamping is able to provide 80-100 ml of extra blood to the newborn. Delay time of the umbilical cord about 2-3 minutes can provide blood redistribution between the placenta and the baby, provide placental transfusion assistance obtained by infants as much as 35-40 ml / kg and contain 75 mg of iron as hemoglobin, which is sufficient for the baby's iron needs in First 3 months of his life.

Based on result of this study, ther was the difference in the average value of hemoglobin in newborns with delayed cord and early cord clamping in 16 infant samples. Based on the results of the statistical test, the value of P = 0,000 means that the statistical test results <0.05 obtained a significant difference between the average value of newborn hemoglobin which is delayed cord clamping .

This study is in line with research conducted by Jemima et al (2014), on the effect of cord clamping time on hemoglobin neonatal levels in Tanggerang Regional Hospital in 2014, it is known that the average newborn hemoglobin is 19.66 gr / dl that the longer the delay of cord clamping, it will increase the baby's hemoglobin levels and reduce the risk of anemia in newborns.

The same research was also carried out by Riris Andriani (2013), on the Literature Study of the Effect of Delaying Cord Clamping in 4 Newborns and Haemoglobin found: 19.9 g / dl and this proves that delaying cord clamping can reduce the risk of anemia in new born baby.

Hematocrit (micro) is the volume of erythrocytes separated from plasma by turning it in a special tube whose value is expressed in percent. A normal hematocrit value is called%, the value for men is 40-48 vol% and for women 37-43 vol%.(Gandasoebrata, 2010) Hematocrit examination is useful for measuring the degree of anemia and polycythemia. To find the jaundice that can be observed from the color of plasma, where the color formed is yellow or dark yellow. Can also be used to determine the average volume of erythrocytes, a screening test in detecting the presence of hyper bilirubinemia.

Based on result of this study which showed that the difference in the average value of hematocrit of newborns with delayed delay of umbilical cord and early cord clamping in 16 samples of newborns. Based on the results of the statistical test, the value of P = 0.001 means that the statistical test results <α have a significant difference between the average value of hematocrit of newborn babies by delaying the time of the umbilical cord clamping and the immediate umbilical cord clamping.

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This study is in line with the Muara P Lubis Research (2008) with the title "The Impact of Delaying Umbilical Cord to the Increased Hemoglobin and Hematocrit of Infants in Normal Labor in General Hospital. H. Adam Malik - RSUD Dr. Pirngadi Medan "by using a cross sectional design, a sample of 60 people, data analysis with chi-square and independent t-test, the Chi-square test obtained an insignificant relationship between age, education, gestational age, number of parity with the time of the umbilical cord on both research groups. In the independent t-test obtained a significant relationship between the value of hemoglobin levels and infant hematocrit with umbilical cord time in both study groups.

According to the assumptions of researchers in the group that carried out the time delay of the umbilical cord, the average hematocrit level was 55.2%, with a minimum hematocrit level that was 49.6.6%, the maximum hematocrit level was 63.5%. If we look at the hematocrit levels of 16 respondents varied, where we know in theory that the hemoglobin level in infants aged 6 months - 6 years is 44% - 65%, where in theory it is stated that the decrease in the hematocrit value is caused by one of the decreasing hemoglobin values. In the opinion of researchers with the results of this study in accordance with the theory because of the delay in time the umbilical cord binding will increase the value of hemoglobin in infants.

V. CONCLUSION

The chemical content of papaya leaves is known to have a variety of chemical properties. Among others bromelin enzymes, alkaloids, karpaina, papain enzymes, pseudocarpain, carposid, glycoside saponin, calcium and many contain vitamin B, vitamin B, vitamin C. Papaya leaves is contain many substances which needed by the body and various kinds of vitamin content, one of them is vitamin A which can help the hypophise of prolactin in in the epithelium of the brain so that prolactin will increase. It is crucial to educate postpartum mother to consumpt papaya leaf to increase their breastmilk

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