

**THE EFFECTS OF CUPPING THERAPY ON LEVEL OF DYSMENORRHEA  
IN ADOLESCENT IN RW. 06 WONOAYU  
GEMPOL PASURUAN**

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**Abstract**

Dysmenorrhea is one of the gynecological problems that interfere with daily life and the most common problems experienced by women, especially adolescent. Purpose of this study was to determine the effect of cupping therapy on the level of dysmenorrhea in adolescent in RW. 06 Wonoayu Gempol Pasuruan.

This research design is pre-experimental with design one-group pre-post design and adolescent population in the village RW. 06 Wonoayu Gempol Pasuruan with dysmenorrhea as much as 17 adolescents. And a large sample of 16 adolescents were taken as the samples by using probability sampling with using simple random sampling technique. The data were analyzed using the Wilcoxon signed rank test .

The results of research showed that before cupping therapy (pre-test) the majority of respondents (68.7%) stated rate of severe dysmenorrhea (7-9) and after cupping therapy (Post-test ) half of the respondents (50.0%) stated rate of dysmenorrhea is no pain (0). After the Wilcoxon signed rank test in get  $p$  value is 0.001 and the value of  $\alpha = 0.05$ .

The conclusion from this study that the cupping therapy can reduce the rate of adolescents dysmenorrhea in RW. 06 Wonoayu Gempol Pasuruan. In order to improve the quality of nursing care that is done independently to provide nursing interventions especially dysmenorrhea management. Nurses should be complementary techniques by means of nonpharmacological pain reduction such as cupping therapy

**Key words:** cupping therapy, dysmenorrhea

**1. INTRODUCTION**

Every woman experiences different menstrual experiences. Some women get menstruation without complaint, but not a few of those who get menstruation with complaints that cause discomfort in the form of dysmenorrhea. Dysmenorrhea or menstrual pain is one of the gynecological problems that often experienced by women, especially adolescent. Dysmenorrhea described as pain in the lower abdomen and the back of the leg. The pain began to be felt in a few hours before bleeding from the vagina, or can also be felt at the onset of menstruation and peaking as the number of menstrual blood flow during the first day to the second menstrual period (Hockenberry et al, 2008).

*Dysmenorrhea* is pain during menstruation that disrupt the daily lives of women and encourage the patient to check or consult a doctor, clinic, or go to the midwife. Almost all women in the world have felt painful menstruation or *Dysmenorrhea* at various levels, ranging from just weary in pelvis and hand in the remarkable sick that menstrual pain forced her to rest or result in decreased performance, reduced daily activities and even Some women are unconscious (fainting) because women are helpless in holding back the pain (Manuaba, et al., 2009; Proverawati & Misaroh, 2009).

In Indonesia incidence of an estimated 55% of women *Dysmenorrhea* productive. The incidence (prevalence) *Dysmenorrhea* ranges from 45-95% among women of

childbearing age. *Dysminorrhea* 28% lighter, 44% *Dysminorrhea* moderate, and 18% by weight *Dysminorrhea* (Princess, 2013). In East Java the number of reproductive young women is aged 10-19 years as many as 3.020.000 especially in Pasuruan number of young women as much as 16.406 (BPS Pasuruan District, 2013). According survey on January 30 2017 in RW 06 Wonoayu Gempol Pasuruan, of 21 adolescents there are 17 (80.9%) adolescents experience *Dysminorrhea*, 14 (82.3%) of them treat adolescents with eating *Dysminorrhea* analgesic drugs and 3 (17.7%) adolescents choose to let the *Dysminorrhea* incident. From the data show that there is nothing in RW. 06 Desa Wonoayu Gempol Pasuruan uses nonpharmacology management which is much cheaper, effective, and without side effects compared with pharmacological management that have side effects and expensive in overcoming menstrual pain.

*Dysminorrhea* occurs due to increased prostaglandin (PG) F<sub>2α</sub> which is a *cyclooxygenase* (COX-2) which resulted hypertonus and vasoconstriction in the myometrium resulting in decreased blood flow and oxygen to the uterus and will lead to ischemia so turn up the response of noriseptor because no stimulus dangerous and initiate neural transmission by releasing substances that produce *Dysminorrhea* (Hillard, 2011).

Cupping therapy is a non-pharmacological therapy that can treat pain especially in *dysminorrhea*, it is shown that the bruise role reduces the levels of prostaglandin substances, thus reducing uterine contractions and reduce sensitivity to pain. With cupping therapy can increase the production of *endorphins* and *enkephalin*, any other substances and can stimulate blood circulation in the uterus, thereby reducing uterine contractions and sensitivity to pain. Treatment with cupping has no side

effects at all compared with treatment with pharmacological drugs such as non steroidal analgesic drugs and steroids that have harmful side effects on the stomach and kidneys (Sharaf, 2012).

Regarding the problem of menstrual pain treatment one of them using cupping therapy, the researchers are interested to know about how the influence of bruise therapy on *dysminorrhea* in adolescents in RW 06 Wonoayu Gempol Pasuruan

## 2. METHOD

This type of research is the *Pre-Experimental* design with *One-group pre-post design*. This type of research seeks to reveal causal relationships by involving a group of subjects. In this design, the observation was done 2 times before giving intervention, then observed again after giving intervention.

Population in research are adolescent (aged 10-19 years) with menstrual pain in RW. Won 06 oayu Gempol Pasuruan village as much as 17 remaj a.

Sampling was carried out with this study using the *Probability Sampling* with *simple random sampling technique*.

The independent variable in this study is the provision of cupping therapy v ariabel dependent whereas in this study is the degree of *dysmenorrhea* in adolescent girls. The instrument used is to use the observation sheet.

How is the data collection with an data collection through the administrative process, the selection process and the implementation phase is divided into three phases, first measurement menstrual pain level before the given intervention, the intervention awarding procedure and measurement of menstrual pain after cupping therapy.

Data already collected or correction *coding* is done through observation sheets, and then analyzed the effect of cupping therapy on the rate of menstrual pain to the respondents before and after cupping

therapy using statistical test of Wilcoxon signed rank test With significance level  $\alpha = 0.05$ . If the test result statistics show  $p < 0.05$ , statistical hypothesis  $H_0$  is rejected and the research hypothesis  $H_1$  accepted, which means there is the effect of cupping therapy on the rate of menstrual pain in adolescents in RW. 06 Wonoayu Gempol Pasuruan.

### 3. RESULT

#### 3.1 Level Dysminorrhea Before Cupping Therapy

Results of research on the characteristics based on their level of menstrual pain before cupping therapy as shown in Table 4.1 as follows:

No.	Level dysminorrhea before cupping therapy	freuen cy	percenta ge (%)
1	No Pain (0)	0	0
2	Mild Pain (1-3)	1	6,3
3	Moderate Pain (4-6)	4	25,0
4	Severe Pain (7-9)	11	68,7
5	Very severe Pain (10)	0	0
Amount		16	100

Sources: Primary Data, March 2017

The level of dysminorrhea in adolescents in RW.06 Wonoayu Gempol Pasuruan before being given a different cupping therapy. Based on Table 4.1 shows that out of 16 respondents the majority (68.7%) rate dysminorrhea before cupping therapy in adolescents in RW. 06 Wonoayu Gempol Pasuruan is severe pain (7-9) and has an average of menstrual pain with a scale of 7.31. According to Morgan and Hamilton (2009) Dismenorhea occur as a result of increased endometrial prostaglandin in high quantities. Under the influence of

progesterone during the luteal phase of the menstrual, endometrial containing prostaglandin increased to the maximum level in women haid. Prostaglandin cause contractions of the myometrium were strong and able to constrict the blood vessels resulting in ischaemia, the disintegration of the endometrium and pain. Dysminorrhea perceived by respondents is usually pain in the lower abdomen and can spread to the inside of the thigh or lower part of the waist and the back, this situation makes the sufferer nausea, vomiting, diarrhea, could not b eraktivitas as usual even able to make the sufferer fainting or unconscious.

#### 3.2 Level Dysminorrhea Before Cupping Therapy

Results of research on the characteristics based on their level of menstrual pain after cupping therapy shown in Table 4.2 below:

No	Level dysminorrhea after cupping therapy	freuen cy	Percentag e (%)
1	No Pain (0)	8	50,0
2	Mild Pain (1-3)	5	31,3
3	Moderate Pain (4-6)	3	18,7
4	Severe Pain (7-9)	0	0
5	Very severe Pain (10)	0	0
Amount		16	100

Sources: Primary Data, March 2017

The level of dysminorrhea in adolescents in RW.06 Wonoayu Gempol Pasuruan after cupping therapy is given different and decline. Based on Table 4.2 shows that out of 16 respondents half (50.0%) rate of menstrual pain after cupping therapy in adolescents in RW. 06 Wonoayu Gempol Pasuruan is no pain (0) and having an average menstrual pain with a scale of 1.25, which means an

average level dysminorrhea in adolescents is mild pain. The table shows that cupping therapy can decrease pain levels with some of the processes of cupping therapy. Such processes include the selection of the appropriate point, the exploitation of the skin and subcutaneous tissue, the omission of cupping or cupping in a position of negative pressure and bleeding by using mild pricking technique by means of lancing device. Treatment of menstrual pain is done in accordance with the procedure and Standart operational procedure conducted over  $\pm$  30 minutes and at a point 3-5 cm below the center and combines the sunnah point warik (pelvis) is on top of the pelvis on the right and left lateral ilium, meeting the gluteus maximus muscle the gluteus medius down, left and right. Cupping therapy is one therapy that cause relaxation effects that can reduce the level of dysminorrhea In addition, before taking the action cupping therapy should eliminate noisy sources of sound in the environment, greet clients with friendly and attentive. This can make the client feel cared for, so the sense of comfort arises and the pain becomes reduced.

According to Sharaf (2012) of cupping therapy has the effect to reduce menstrual pain, it is indicated that the cupping therapy serves to reduce the levels of prostaglandins, thereby reducing uterine contractions and reduce sensitivity to pain, bruise served to increase the production of substances endorphin and enkephalin which reduce pain, bruise role in Stimulates blood circulation in the uterus thus reducing uterine contractions and sensitivity to pain, the bruising and blood clot in this injury stimulates the fibrinolytic system to thin the menstrual blood that is frozen so that the uterus does not need to contract to remove the blood, cupping helps to relax the neck muscles so it does not happen inhibiting uterine menstrual blood flow and prevent the

occurrence of uterine contractions, cupping also help relax the isthmus region (the part between the cervix and uterus) and the role of cupping stimulates blood circulation in the uterine wall so as to prevent damage to the tip Taste nerve.

### 3.3 Effect of Cupping Therapy on level of dysminorrhea in RW. 06 Wonoayu Gempol Pasuruan

Results of research on the characteristics based on the effect of cupping therapy on the level of dysminorrhea after and before as shown in Table 4.3 below:

No	The level of dysminorrhea	Pre-Test		Post-Test	
		fre ue nc y	Perc enta ge (%)	fre ue nc y	Perc enta ge (%)
1	No Pain (0)	0	0	8	50,0
2	Mild Pain (1-3)	1	6,3	5	31,3
3	Moderate Pain (4-6)	4	25,0	3	18,7
4	Severe Pain (7-9)	11	68,7	0	0
5	Very severe Pain (10)	0	0	0	0
Amount		16	100	16	100

Sources: Primary data, March 2017

Based on Table 4.3 shows that the level of dysminorrhea before cupping therapy (*Pre-test*) the majority of respondents (68.7%) stated the level of severe dysminorrhea (7-9) and after therapy cupping (*Post-test*) half the respondents (50.0%) stated level of dysminorrhea no pain (0).

#### 4. DISCUSSION

Based on Table 4.3 shows that level of dysminorrhea before cupping therapy (*Pre-test*) most respondents 11 (68.7%) reported severe menstrual pain level with the average scale of 7.31 and after the level of dysminorrhea therapy cupping (*Post-test*) Half of respondents 8 (50.0%) stated no pain with average 1.25 menstrual pain scale. Based Wilcoxon signed rank test in get  $p$  value is 0.001 and the value of  $\alpha = 0.05$ , meaning  $p < \alpha$  then  $H_0$  Rejected means there is influence of cupping therapy on the level of dysminorrhea in adolescents in RW.06 Wonoayu Gempol Pasuruan.

Severe menstrual pain arising due to increased *prostaglandin* that stimulates contractions in the uterus strongly. The longer menstruation occurs, the more often uterus so consequently the more *prostaglandin* released, due to excessive *prostaglandin* production then the resulting pain. Handling of menstrual pain by using cupping therapy is very easy, practical, and has no side effects such as the use of expensive pharmacological treatments and have side effects on the stomach, kidneys and other organs. According Umar (2012) Non-pharmacological treatment of menstrual pain one of them using this cupping therapy is a method of treatment using a tube or *cupping* face down on the surface of the skin to cause a local dam. This is caused by the *negative* pressure inside the blood collection tube to occur locally. Then the blood is removed from the skin with injury and suction, with the aim of increasing the circulation of blood and *chi* energy, cause analgesic effect or reduce pain, reduce crusting, and expel *pathogenic* wind, either cold or humid.

At the time of expulsion of blood at the right point (potent point) occurs expenditure of prostaglandin substances that are formed due to cell inflammation. Through the process of cupping, this

substance is released so that the pain felt by the sufferer of dysminorrhea is reduced and the result of sucking and injury (blood dispensation) will stimulate the release of endorphin and enkephalin that reduce the sensitivity (sensitivity) to pain so that clients feel relaxed and comfortable. In the right point of clot hide the skin, under the skin tissue, fascia, and muscle will be damaged from the mast cells and others. As a result of this damage will be released serotonin substances, histamine, bradykinin, slow reacting substance (SRS), and other substances that have not been known. This substance causes the occurrence of capillary and arteriole dilatation, and flare reaction in the area yag in cupping. Capillary dilatation may also occur in places away from the site of pembekaman. Ini cause improvement microcirculation of blood vessels. As a result, there will be a relaxation effect (relaxation) muscles are stiff and blood circulation, especially in the uterus, thus reducing uterine contractions and sensitivity to pain (Sharaf, 2012, Umar, 2012). With the above processes show that through the provision of cupping therapy, the level of dysminorrhea in adolescents in RW.06 Wonoayu Gempol Pasuruan decreased.

#### 6. CONCLUSIONS AND SUGGESTIONS

##### 6.1 Conclusions

From the results of the study conducted by researchers, the researchers conclude some of the following;

1. Most teens before cupping therapy given level is very severe dysminorrhea.
2. Half of teens after cupping therapy is given the level of dysminorrhea is not painful.
3. There is an effect of cupping therapy on reduction of dysminorrhea before and after cupping therapy.

##### 6.2 Suggestions

The results of this study are expected to be used as a subsequent research data and

can be useful for educator nurses in developing appropriate learning methods to improve students' ability in understanding the influence of bruiase therapy to menstrual pain rate so that it can add knowledge insight for nurses and nursing students. We hope this research can also be used as consideration in order to improve the quality of nursing care is done independently to provide an especially keperawat intervention pain management.

## REFERENCE

- Anurogo dan Wulandari.(2011). *Cara Jitu Mengatasi Nyeri Haid*. Yogyakarta, ANDI
- Arikunto.(2006). *Prosedur Penelitian Suatu Pendekatan Praktek*. Jakarta, Rineka Cipta
- Asrinah, Jamingatu S, Suciyati.(2011). *Menstruasi dan Permasalahannya*. Yogyakarta, Pustaka Penasea
- Bobak.(2004). *Buku Ajar Keperawatan Maternitas*. Jakarta, EGC
- Divisi Diklat dan Litbang ABI.(2012). *Panduan pengajaran Bekam: ABI*. Jakarta, Tim Diklat ABI Pusat
- Fatahillah, Ahmad.(2013). *Keampuhan Bekam: Pencegahan & Penyembuhan Penyakit Warisan Rasulullah*. Jakarta, Qultum media
- Kumalasari, Intan.(2012). *Kesehatan Reproduksi Untuk Mahasiswa Kebidanan dan Keperawatan*. Jakarta, Salemba Medika
- Kusmiran, Eny.(2011). *Kesehatan Reproduksi Remaja Dan Wanita*. Jakarta,, Salemba Medika
- Laila, Nur Najmi.(2011). *Buku Pintar Menstruasi*. Yogyakarta, Buku Biru.
- Manuaba, IBG.(2008). *Gawat-Darurat Obstreti-Ginekologi dan Obstreti-Ginekologi untuk Profesi Bidan*. Jakarta, EGC
- Manuaba, Sri Kusuma Dewi Suryasaputra, dkk.(2009). *Buku Ajar Ginekologi Untuk Mahasiswa Kebidanan*. Jakarta, EGC
- Morgan, Geri, dkk.(2009). *Obstetri Dan Ginekologi Paduan Praktik Ed. 2*. Jakarta, EGC
- Notoatmodjo.(2010). *Metodelogi Penelitian Kesehatan*. Jakarta, Rineka Cipta
- Nursalam.(2011). *Konsep dan Penerapan Metodologi Penelitian Ilmu Keperawatan: Pedoman Skripsi, Tesis dan Instrumen Penelitian Keperawatan*. Jakarta, Salemba Medika.
- Nursalam.(2013). *Metodologi Penelitian Ilmu Keperawatan ed. 3*. Jakarta, Salemba Medika
- Perry dan Potter.(2005). *Keterampilan dan Prosedur Dasar*. Jakarta, EGC
- Purnomo, Windhu.(2007). *Hand Out/ Metodologi Penelitian Kuantitatif*. Surabaya, FKM Unair
- Proverawati dan Misaroh.(2009). *Menarche Menstruasi Pertama Penuh Makna*. Yogyakarta, Nuha Medika
- Santrock, Jhon.(2007). *Remaja Ed. II Jilid 2*. Jakarta, Erlangga
- Sarwono, P.(2005). *Ilmu Kandungan*. Edisi 2 cetakan IV. Jakarta, Yayasan Bina Pustaka.
- Sastroasmoro dan Ismael.(2008). *Dasar-Dasar Metodologi Penelitian Klinis, Ed.3*. Jakarta, Sagung Seto
- Sharaf, Ahmad Razak.(2013). *Penyakit dan Terapi Bekamnya : Dasar-Dasar Ilmiah Terapi Bekam*. Surakarta, Thibbia
- Sumiati, dkk.(2009). *Kesehatan Jiwa Remaja Dan Konseling*. Jakarta, TIM
- Tamsuri, Anas.(2007). *Konsep dan Penatalaksanaan Nyeri*. Jakarta, EGC
- Tim Penulis Poltekkes Depkes Jakarta I.(2010). *Kesehatan Remaja :*

- Problem dan Solusinya*. Salemba Medika, Jakarta
- Umar, Wadda' A.(2008). *Sembuh dengan Satu Titik*. Solo, Al-Qolam Publishing
- Umar, Wadda' A.(2012). *Sembuh dengan Satu Titik 2*. Solo, Al-Qolam Publishing
- Wiknjosastro, Hanifa.(2007). *Ilmu Kebidanan*. Jakarta, YBP-SP

