



THE INFLUENCE OF RED GINGER DRINKING TOWARDS DEGRADATION DISMENORE PAIN INTENSITY

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ABSTRACT

Backgrounds: Dysmenorrhea is a problem most often encountered in teenagers. In Indonesia 55% occur in productive women. The impact that occurs can disrupt daily activities, motivation and learning concentration decreases and due to the pain felt by teenagers, rest at home due to complaints of perceived pain. Efforts are made by giving red ginger drinks as an alternative effort to reduce dysmenorrhea. **Objectives:** This study aimed to determine the effect of giving red ginger to reduce the intensity of dysmenorrhea pain. **Methods:** The study was conducted using Quasi one group pretest posttest design experiment. Taking a total sample of sampling, as many as 31 respondents. Primary data collection was carried out giving red ginger drink given for 6 consecutive days. Instrument Numeric Rating Scale (NRS). Data were processed univariate and bivariate using non parametric dependent t test (Wilcoxon test). **Results:** The study results shows that the pain level experienced by students before consuming red ginger drink is in the category of medium on 15 respondents (48,4%), and the pain level after consuming is in the category of low on 17 respondents (54,9%). It is found out that there is effect of providing red ginger drink on decreasing dysmenorrhea pain by the P value of $0,000 < 0,05$. **Conclusions:** Based on the results of the study that the intensity of dysmenorrhea pain after administration of red ginger has decreased the level of moderate to mild pain. This shows the effectiveness of giving red ginger drink to decrease pain intensity in teenage girl. **Suggestions:** It is expected that young women can use red ginger to reduce dysmenorrhea pain as a non-pharmacological way that is safe and easy to obtain at home.

Keywords: Quasi Experimental design, red ginger, Dysmenorrhea

INTRODUCTION

Menstruation is a natural process that occurs in women, but is a problem for young women if menstrual pain occurs. Dysmenorrhea or menstrual pain occurs during or immediately before menstruation. Menstrual pain arises on the first day and will disappear by itself (Lowdermik, 2009).

The incidence of dysmenorrhea in the world is very large, on average more than 50% of women in each country experience dysmenorrhea. In Indonesia the incidence of dyemenorhoe was 107,673 people (64.25%), consisting of 59,671 people (54.89%) experienced primary dysmenorrhea and 9,496 people (9.36%) had secondary dysmenorrhea. (Marlinda, 2012, ¶2, <http://jurnal.unimus.ac.id/index.php/JKMat/article/view/998/1047> obtained on 24 December 2015).

Factors that cause dysmenorrhea are endocrine factors which include the hormones estrogen, progesterone and prostaglandin. one day before ovulation the hormone estrogen will go down, followed by an increase in the hormone progesterone (Guyton and Hall, 2007). Excessive

circulation of prostaglandins throughout the body will result in increased activity of the large intestine. These prostaglandins cause symptoms of headaches, dizziness, diarrhea and nausea that accompany pain during menstruation or dysmenorrhea (Wiknjosastro, 2012).

Various efforts both pharmacological and non pharmacological to relieve pain. Pharmacological methods commonly used to relieve pain by administering analgesics, and non-pharmacological therapy using warm compresses, exercise, music therapy, consuming ginger water, yoga and progressive muscle relaxation techniques (Proverawati & Misaroh, 2009, Hapsari 2013).

One of the handling of non-pharmacological dysmenorrhea is consuming ginger water. Ginger (*Zingiber officinale*) is a rhizome plant that is famous as an ingredient of spices and medicinal ingredients and has a characteristic with a sharp aroma (Baktiar 2010). In addition there are types of red ginger (*Zingiber Officinale*) that are warming the body, antirheumatic, anti-inflammatory, and

analgesic. Shogaol and gingerol compounds can reduce pain. (Nurlaili R 2017).

This research was conducted to determine the effect of giving red ginger on the intensity of dysmenorrhea pain in teenage girl.

METHODS

This study was conducted using quasi-experimental research with one group pre-test post-test design research design. The population of all female students at Stikes General Achmad Yani Cimahi Nursing Study Program S1 level III who meet the sample selection criteria are: young women who experience primary dimenorrhea, regular cycles, do not take pain relievers and who help cope with menstrual pain who experience dysmenorrhea and are willing to become respondents . Sampling with a total sampling technique of 31 people. Retrieval with primary data sources. Before conducting the research, the researcher recorded the menstrual cycle of the female students and selected samples according to the selection criteria. conduct informed consent before intervention.

Administration of red ginger is given for 6 days given 3 days before and during menstruation. How to make red ginger (attached), red ginger is processed by researchers in accordance with the provisions. Before and after the administration, resposdden was assessed using a Numeric Rating Scale (NRS) instrument to see the pain variables. The shape of the NRS scale was divided: no pain, mild pain, moderate pain, severe pain, severe pain. Study location of General Ahmad Yani Stikes Cimahi Bachelor of Nursing Study Program in February until March 2018.

RESULTS

Table 1 Distribution of Dysmenorrhea Pain Intensity Before administration of Red Ginger

Pain categories	Frequency (n)	percentage (%)
Mild Pain	9	29.0
Moderate Pain	15	48.4
Severe pain	7	22.6
Total	31	100

Source: Primary Data

Table 1 shows the intensity of dysmenorrhea pain before being given red ginger drink from 31 female students, almost half of the respondents experienced moderate pain in 15 students (48.4%).

Table 2 Distribution of Dysmenorrhea Pain Intensity after administration of Red Ginger

Pain categories	Frequency (n)	percentage (%)
Mild Pain	9	29.0
Moderate Pain	17	54.9
Severe pain	5	16.1
Total	31	100

Source: Primary Data

Table 2 found that more than half of respondents experienced mild pain as many as 17 female students (54.9%).

Table.3 Effects of Red Ginger Drink towards Dysmenorrhea Pain Intensity degradation

Variabel	Frequency (n)	Median (Min – Max)	P value
Scale of Pretest Pain	31	5 (1 – 8)	0.000
Scale of Posttest Pain	31	2 (0 – 5)	

Source: Primary Data

Table 3 shows that p = 0.000 shows that there is an effect of giving red ginger drink to decrease the intensity of dysmenorrhea pain with a median value before being given a red ginger drink with pain intensity 5 and after given ginger drink with a median value of pain intensity 2

DISCUSSION

Pain in dysmenorrhea results from the release of certain prostaglandins. Prostaglandin F2 alpha a strong myometrial stimulant and vasoconstrictor (constriction of blood vessels) in the endometrium. (Laila Nur Najmi 2011) Prostaglandin F2 alpha is a strong stimulator of myometrial smooth muscle contraction and contraction of uterine blood vessels. A 3-fold increase in endometrial prostaglandins occurs follicular phase towards the luteal phase which occurs approximately 5-7 days before the onset of menstruation. An increase in prostaglandins in the endometrium following a decrease in progesterone at the end of the luteal phase results in an increase in myometrial muscle tone and excessive uterine contractions (Anugroho and Wulandari, 2011: 46 & 80, Ramadhy, Asep 2011).

Some factors are thought to trigger menstrual pain including psychological or emotional factors that are unstable and prone to menstrual pain, endocrine factors are thought to be the onset of menstrual pain due to excessive uterine contractions, prostaglandin factors arising from increased production of prostaglandins (by the uterine wall) when menstruation that causes menstrual pain, and the activity factors of emotional

distress and moody mood will affect blood flow so that it can affect the occurrence of dysmenorrhea pain (Hendrawan, 2008).

In this study, giving red ginger for 6 days, given 3 days before menstruation and 3 days seat menstruation before and after giving red ginger respondents were given NRS sheets to be filled.

According to a lisa 2017 research Red Ginger is a variant of ginger with essential oils and oleosin content that is higher than other types of ginger. Therefore, usually red ginger can be used for traditional medicine most often given in the form of ginger drinks. Supported by Ozgoli ginger proven to have the same effectiveness with mefenamic acid and profen mothers in reducing the pain of primary dysmenorrhea.

Ginger is a cheap and easy-to-get medicine everywhere and has many benefits including: lowering high blood pressure, helping digestion, promoting blood circulation, colds and nausea, counteracting free radicals and relieving pain, compressing drugs, improving digestion and medication in insect bites, treat stomach aches, treat toothaches, reduce dysmenorrhea when menstruating. (Baktiar 2010).

This study is in line with research conducted by Nurlaili 2017 research on the effectiveness of giving ginger ingredients to changes in menstrual pain intensity that there is an effect of pain reduction on ginger ingredients with p value = 0,000, and suparmi research has an effect on decreasing the pain scale of dysmenorrhea before and after being given extra red ginger and the longer the administration of ginger drink the intensity of pain decreases. This research is supported by the results of the 2017 suparmi research that there is an influence on the decrease in dysmenorrhea scale before and after given red ginger extract with p value = 0,000.

Red Ginger (*Zingiber Officinale*) is believed to overcome menstrual pain. This red ginger drink is warm the body, antirheumatic, anti-inflammatory, and analgesic. Shogaol and gingerol compounds can reduce pain. Red ginger as an anti-inflammatory by the way it works that can inhibit the work of enzymes in the cycle of cyclooxygenase (COX) so that it can inhibit the release of these enzymes into prostaglandins that cause inflammation. In addition, red ginger can also inhibit contractions in the uterus that cause pain during menstruation. (Rfile Ar, Olczyk).

CONCLUSIONS

Based on the results of the study that the intensity of dysmenorrhea pain after administration

of red ginger has decreased the level of moderate to mild pain. This shows the effectiveness of giving red ginger drink to decrease pain intensity in teenage girl.

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