



## The Effect of Warm Compresses on Reducing Dysmenorrhea Pain in Women of Childbearing Age at the Bungursari Health Center, Purwakarta Regency, Indonesia

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### ABSTRACT

Menstrual disorders that are often experienced by women such as lower abdominal pain, irregular menstruation, low back pain, and one of them is dysmenorrhea. Dysmenorrhea is a condition where women experience pain during menstruation which has a bad effect causing disruption to carrying out daily activities because of the pain they feel. This condition can last 2 days or more than the length of menstrual days each month. There are several ways that can be done to treat pain non-pharmacologically, including massage therapy, elevating the feet from the body, exercising, regulating diet and applying warm compresses. This study aimed to determine the effect of warm compresses on reducing menstrual pain (dysmenorrhea) in women of childbearing age at the Bungursari Health Center. This study was an experimental research with a one group pretest posttest design approach, obtained by 30 respondents. The sample in this study were all women of childbearing age who experienced menstrual pain (dysmenorrhea) in the Bungursari Health Center, Purwakarta Regency. Warm compresses can reduce menstrual pain (dysmenorrhea) at the Bungursari Health Center,  $p$  value=0.002 <  $\alpha$  (0.05). Giving warm compresses can reduce menstrual pain in women of childbearing age (WUS). It is expected that the public will gain knowledge about menstrual pain (dysmenorrhea) and can use warm compress therapy as a way to deal with menstrual pain (dysmenorrhea).

### 1. Introduction

Dysmenorrhea, better known as menstrual pain, is a common condition experienced by most women of childbearing age worldwide, including in Purwakarta Regency, Indonesia. This pain can interfere with the quality of daily life and productivity of women, so it becomes a significant health problem. One method that is often used to treat dysmenorrhea pain is warm compress therapy. The effect of warm compresses on reducing dysmenorrhea pain has become a major concern in the field of women's health. Warm compresses are a simple, affordable, and accessible non-pharmacological method for most individuals. This therapy involves using heat applied to the

abdomen or waist area during menstruation, with the aim of relieving menstrual pain.<sup>1-3</sup>

Warm compress therapy is one method that is very accessible to many individuals. This is because the materials needed for a warm compress, such as a warm towel or heating pad, are easily available at home or can be made inexpensively. This factor is important to ensure that all women, regardless of their economic background, have access to effective means of reducing menstrual pain. Warm compresses are a safe, non-pharmacological method. This means that there is no risk of serious side effects associated with its use, as can occur with medications. Women can use this therapy without worrying about the potential negative



impact on their health. In addition to relieving pain, warm compresses also provide a relaxing sensation that can help reduce stress and tension that can often exacerbate menstrual pain. This warm, comforting feeling can help women feel better overall during their periods. The use of warm compress therapy during menstrual pain can significantly improve a woman's quality of life. By reducing the level of discomfort they experience, they can continue their daily activities and remain productive without being distracted by intense pain. Warm compress therapy can be the first choice for women who want to avoid drugs or as a companion to other medical treatments. This provides flexibility in the management of menstrual pain so women can choose the approach that best suits their preferences and needs. Purwakarta Regency, located in West Java Province, Indonesia, has a significant population of women of childbearing age.<sup>4-8</sup> Therefore, research on the effect of warm compresses on reducing dysmenorrhea pain in women of childbearing age at the Bungursari Health Center, Purwakarta Regency, has great relevance in improving the quality of life and welfare of women in the region.

## 2. Methods

This study was a quasi-experimental study with a pre-post-test approach and used primary data obtained from direct observation of respondents. A total of 30 research subjects participated in this study,

where the research subjects met the inclusion criteria. The inclusion criteria in the study were women of childbearing age with complaints of dysmenorrhea in the work area of the Bungursari Health Center, Purwakarta Regency, Indonesia and who were willing to participate in this study. The intervention given is in the form of giving warm compresses at least 4 times a day for complaints of dysmenorrhea.

Assessment and diagnosis of dysmenorrhea is carried out by health workers professionals. Assessment of the effectiveness of giving warm compresses against dysmenorrhea is done by visual analog scale (VAS). Data analysis was carried out using SPSS software version 25. Univariate and bivariate analyses were performed in this study. Univariate analysis was performed to present the frequency distribution of each data variable test. Bivariate analysis was carried out to test the effectiveness of the intervention on dysmenorrhea, with a p-value <0.05.

## 3. Results and Discussion

Table 1 presents the effectiveness of pre and post-test interventions. This study shows that the intervention of giving warm compresses has shown effectiveness in reducing pain intensity in sufferers of dysmenorrhea. There was a decrease in pain intensity after giving warm compresses, and it was statistically different  $p < 0.05$ .

Table 1. The effectiveness of pre and post-test interventions.

Variable	Pre-test	Post-test	P-value*
Pain scale level	4,46±0,21	1,18±0,11	0,001

\*T-test dependent,  $p < 0,05$ .

One of the key elements in the effectiveness of warm compress therapy is its ability to relax tight uterine muscles. During menstruation, the uterus contracts to help expel menstrual blood. These contractions can cause pressure and pain. The heat from the warm compress works by stimulating the relaxation of these muscles, which can reduce the

intensity of the contraction and, in turn, reduce pain. The heat applied by the warm compress also helps increase blood flow to the abdominal and pelvic area. This is an important mechanism in reducing menstrual pain because the increased blood flow can bring more oxygen and nutrients to the affected tissues. Along with that, the increased blood flow also



helps remove waste products that may be triggering pain. The heat from a warm compress can also have a reducing effect on nervous tension. This can help relieve the emotional and physical tension often associated with period pain. Women often experience stress and anxiety during menstruation, which can exacerbate pain. The feeling of relaxation from a warm compress can help with this. When heat is applied evenly to the belly or waist area, women often feel a feeling of relief and comfort. This creates a positive experience that helps distract from menstrual pain that may be felt.<sup>9,10</sup>

Warm compress therapy is a method that is very simple in its use. Women only need to heat a towel or use a heating pad, then place it on the stomach or waist area for a few minutes. No special equipment or special skills are required to use it, so it can be easily integrated into daily routines. One of the biggest advantages of warm compress therapy is that it is affordable. The materials needed to make a warm compress, such as a towel or heating pad, are generally available in households at no extra cost. Even if one needed to buy these materials, the costs would still be much lower than using drugs or medical treatments that may be required for menstrual pain. The ingredients for warm compress therapy are easily accessible to most of the individuals. Towels or heating pads can be found in households or easily purchased at local shops. This means that the therapy is accessible to a large number of women around the world, regardless of their economic or geographic background. Due to its simplicity and accessibility, warm compress therapy can be easily integrated into a woman's daily care routine. It can be used at home, work or even on the go. Women can use this therapy according to their needs without interfering with daily activities. Warm compress therapy gives control to women in managing their own menstrual pain. They can use this therapy whenever they feel the need, without having to rely on medical care or prescription drugs. This provides a high degree of independence in

caring for their own health. Thus, the ease of use and accessibility of warm compress therapy make it a very viable and popular solution for menstrual pain.<sup>11-13</sup>

Pain medications such as analgesics can have potentially serious side effects if used excessively or on a long-term basis. These include digestive problems, liver problems, kidney problems, and even the risk of addiction to certain drugs. By reducing dependence on these medications through the use of warm compresses, women can avoid the risk of potentially dangerous side effects. Long-term use of painkillers can also result in significant costs, both for the purchase of the drugs themselves and for visits to related health professionals. Warm compresses are a much more affordable alternative, which can help women save money. Long-term use of painkillers can disrupt the body's chemical balance. Overuse can influence various body systems, while warm compresses work more naturally, helping the body respond naturally to pain. Warm compress therapy is a much safer alternative in managing menstrual pain. Women do not need to worry about the risk of addiction or harmful side effects that can be associated with the overuse of analgesics. Warm compress therapy helps reduce the burden on certain organs, especially the liver and kidneys, which have to process drugs. By reducing their use of drugs, women can help keep their organ systems healthy. Reducing dependence on painkillers through the use of warm compresses is a wise step for long-term health.<sup>14,15</sup>

#### 4. Conclusion

There is an effect of giving warm compresses to reduce menstrual pain (dysmenorrhea) at the Bungursari Health Center, Purwakarta Regency, Indonesia.

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