

Original Research

Coping Mechanisms among Women Who Experience Dysmenorrhea in Baleasri Village, Magetan, Indonesia

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ABSTRACT

Background: Dysmenorrhea (menstrual pain) is often experienced by women of childbearing age. The main complaint is abdominal pain that spreads from the lower back to the thighs. The pain complaint results in disruption of daily activities. The purpose of the study was to identify the description of type of coping, and coping mechanisms in women who experience dysmenorrhea. **Methods:** The type of research used was descriptive exploratory with a population of 252 women of childbearing age who experienced dysmenorrhea. The sample size of this study was 152 women (Krejci & Morgan table). The independent variable is dysmenorrhea, and the dependent variable is the type and coping mechanisms. The instrument for identifying the type, and coping mechanisms used a questionnaire. Data on women of childbearing age who experienced dysmenorrhea were obtained from secondary data from the Village Midwife's records. Data collection techniques used questionnaires and secondary data observations. Data analysis was carried out descriptively, in the form of frequency distribution percentages and prevalence ratios. **Results:** The results showed that women who experienced dysmenorrhea tended to use adaptive coping. The most frequently used coping mechanism was problem-focused coping. Women who work and are active in sports are risk factors that can reduce dysmenorrhea. Adolescent age, secondary education, age of menarche less than 12 years, and menstrual periods more than 7 days are triggers for dysmenorrhea. **Conclusion:** regular exercise and work are positive coping mechanisms that can reduce dysmenorrhea.

Keywords: Dysmenorrhea; types; mechanisms; coping

1. INTRODUCTION

Menstrual pain is a pain in the abdomen caused by uterine contractions during menstruation. This pain usually lasts from one to several days and often spreads from the lower back to the thighs, so it can interfere with daily activities. Dysmenorrhea can be caused by various factors, ranging from endocrine to psychological problems.⁽¹⁾ One psychological factor that can trigger dysmenorrhea is stress. When someone experiences stress, the production of estrogen and prostaglandin hormones increases, which triggers stronger uterine contractions, causing menstrual pain.⁽²⁾

Adaptive coping mechanisms in dysmenorrhea sufferers include expressing complaints to friends or parents, using warm compresses, and resting or sleeping.⁽³⁾ Meanwhile, maladaptive coping mechanisms can include screaming, getting angry, crying, or choosing to remain silent. Studies that have been reported show variations in the use of coping

mechanisms, such as using patches, drinking orange juice, consuming salt water, orange juice, holy water, or carbonated drinks. In Baleasri Village, based on a preliminary study, it was found that around 90% of unmarried women had a history of dysmenorrhea, while in married women the figure was around 30% had a history of dysmenorrhea. Warm compresses are still the most widely used effort to reduce dysmenorrhea.⁽⁴⁾ Given the various cases of dysmenorrhea, the study was conducted on married and unmarried women in Baleasri Village.

Menstrual pain occurs due to increased production of prostaglandins (PGs), which trigger hypertonicity and vasoconstriction in the myometrium, causing ischemia and pain in the lower abdomen.^(2,5) The more prostaglandins produced, the stronger the uterine contractions.⁽⁶⁾ Dysmenorrhea occurs due to strong and prolonged contractions of the uterine wall, high levels of prostaglandins, and widening of the uterine wall during menstruation. This condition harms women's productivity and quality of life, such as absenteeism from school or work, limitations in activities, decreased academic achievement, sleep disturbances, mood swings, and depression. Each individual has a different way of coping with menstrual pain, such as resting, using compresses or taking warm baths, drinking water or warm water, applying eucalyptus oil or using patches, and taking medicines or herbal medicines to relieve pain.^(7,8)

The solution to reducing the impact of dysmenorrhea is to utilize effective coping mechanisms. This study did not focus on reducing pain due to dysmenorrhea, but rather on identifying the types of coping mechanisms used by women who experience dysmenorrhea. By identifying the types of coping used, the results of this study can be a reference for improving the habit of using less effective coping mechanisms. Menstruation is a natural process that occurs every month in women of reproductive age. If they consistently apply effective coping mechanisms, the use of less effective methods can be reduced, thereby helping to form a more positive perception of menstruation, without complaints every month.

The novelty of this study lies in the effort to improve ineffective coping mechanisms when facing dysmenorrhea so that it can form a positive perception of menstruation.⁽⁹⁾ This study not only focuses on pain management but also on the identification and evaluation of coping habits that are often

inappropriately used by women. By improving ineffective coping strategies, women are expected to be able to face menstruation without excessive complaints, reduce the negative impact of dysmenorrhea, and build better acceptance of the menstrual cycle as a natural process that does not interfere with daily activities.^(10,11) This approach provides a new perspective by directing attention to psychological and behavioral well-being so that overall, women can have a more positive view of menstruation.

2. METHODS

This study was a descriptive exploratory study that aims to identify the types and coping mechanisms in women who experience dysmenorrhea. The location of the study was in Baleasri Village, Magetan, East Java, Indonesia, and was conducted from February to May 2024. The study population included 377 women, both married and unmarried, with a sample size of 152 women taken based on the Krejcie & Morgan Table. The inclusion criteria for this study were women aged 10-50 years who experienced primary or secondary dysmenorrhea, had no history of tumors, cervical cancer, ovarian cysts, or uterine myomas, and were willing to participate in the study. Sampling was carried out using a simple random sampling technique with a lottery. The research variables included age, education, occupation, age of menarche, duration of menstruation, exercise habits, types of coping, coping mechanisms, and pain levels. The research instruments used were the Brief Coping questionnaire⁽¹²⁾ and a menstrual pain detection tool with the Numeric Rating Scale (NRS). The data were analyzed descriptively and using prevalence ratios, which were then presented in narrative form, tables, and figures. This research obtained ethical approval from the Health Research Ethics Commission of the Surabaya Ministry of Health Polytechnic with the number: EA/2392/KEPK-Poltekkes_Sby/V/2024.

3. RESULTS

3.1 Identify the Characteristics of Women Who Experience Dysmenorrhoea

The Table below provides an overview of subject characteristics based on age, education, occupation, age of menarche, length of menstruation, sports activity, and level of pain. Table 1 illustrates that adult subjects are more dominant than teenagers, 61% compared to

39%. The highest level of education (84%) was secondary education (middle school and high school). Employment status: 61% were not working and 63% were less than 12 years old at menarche, menstrual

period ≥ 7 days (56%), most subjects had never done sports activities (67%), and the degree of menstrual pain was more than mild. 51%.

Table 1. Frequency distribution of characteristics of women experiencing dysmenorrhea in Baleasri Village, Magetan, East Java, Indonesia

No	Characteristics	Frequency	Percentage
1	Age		
	Teenage age	58	39%
	Adult age	94	61%
2	Education		
	Mid-level education	128	84%
	Higher education	24	16%
3	Work		
	Doesn't work	93	61 %
	Work	59	39%
4	Age of menarche		
	Age < 12 years	96	63 %
	Age ≥ 12 years	56	37%
5	Length of menstruation		
	< 7 days	67	44%
	≥ 7 days	85	56%
6	Sports activities		
	Not Active	102	67 %
	Active	50	33%
7	Pain levels		
	Mild menstrual pain	73	49%
	The degree of menstrual pain is more than mild	79	51%
8	Marital status		
	Not married yet	69	45%
	Married	83	55%
9	Types of coping		
	Adaptive	100	65%
	Maladaptive	52	35%
10	Coping mechanisms		
	Positive coping mechanisms	103	67%
	Negative coping mechanisms	49	33%
11	Dysmenorrhea		
	Mild menstrual pain	73	48%
	Moderate to severe menstrual pain	79	52%

3.2 Prevalence Ratio of Marital Status to Types and Coping Mechanisms

Table 2 provides information based on the prevalence ratio value of 3.37 ($RP > 1$), indicating that the marital status variable is a risk factor for the

emergence of maladaptive coping types. Table 3 provides information based on the prevalence ratio value of 1.37 ($RP > 1$), meaning that the marital status variable is a risk factor for negative coping mechanisms.

Table 2. Prevalence ratio of the relationship between marital status and types of coping

Marital status	Types of coping		Total	Ratio of prevalence (RP)	Information
	Maladaptive	Adaptive			
Not married yet	39	30	69	RP = [39/69]:[13/83] = 3.37	The variable of marital status is a risk factor for the emergence of maladaptive coping types.
Married	13	70	83		
Total	52	100	152		

Table 3. Prevalence ratio of the relationship between marital status and coping mechanism

Marital status	Coping mechanism		Total	Ratio of prevalence (RP)	Information
	Negative	Positive			
Not married yet	26	43	69	RP = [26/69]:[23/83] = 1.37	The variable of marital status is a risk factor for the negative coping mechanism.
Married	23	60	83		
Total	49	103	152		

3.3 Prevalence Ratio of Women's Characteristics in Baleasri Village Toward Coping Mechanisms During Dysmenorrhea

Table 4 presents the results of calculating the prevalence ratio of subject characteristics to women's coping mechanisms during dysmenorrhea. It is noted that there are three characteristics of female subjects who experience dysmenorrhea that serve as supporting

factors for using positive coping mechanisms: being employed, engaging in active sports, and experiencing more than mild dysmenorrhea. For these three characteristics, the RP value is < 1 . Conversely, adolescent age, secondary education, menarche age less than 12 years, and menstrual length ≥ 7 days are all risk factors for using negative coping mechanisms, as indicated by an RP > 1 .

Table 4. Prevalence ratio of the relationship between characteristics of women who experience dysmenorrhea and coping mechanism

Variable	Coping mechanisms		Total	Prevalence ratio (RP)	Information
	Negative	Positive			
Age					
Teenager	35	23	58	RP = 2.4	Risk factor negative mechanism coping
Adult	24	70	94		
Education					
Intermediate	43	85	128	RP = 1.32	Risk factor negative mechanism coping
Higher	6	16	24		
Work					
Doesn't work	14	79	93	RP = 0.25	enhance positive coping mechanisms
Work	35	24	59		
Menarche age					
< 12 years	32	64	96	RP = 1.1	Risk factor negative mechanism coping
≥ 12 years	17	39	56		
Length of menstruation					
< 7 days	27	40	67	RP = 1.11	Risk factor negative mechanism coping
≥ 7 days	31	54	85		
Sports activities					
Not active	28	74	102	RP = 0.64	enhance positive coping mechanisms
Active	21	29	50		
Pain level					
Light	15	58	73	RP = 0.46	enhance positive coping mechanisms
More than light	34	45	79		

4. DISCUSSION

The results of the study showed that unmarried women tend to use negative coping mechanisms. This is due to the lack of social support from their partners, so they have worse coping mechanisms compared to married women. The stress experienced by unmarried women comes from various sources, such as a less supportive home environment, often getting questions about when they will get married, pressure from parents, lack of attention, and minimal support from friends or family when needed. These factors make them more susceptible to using less effective coping mechanisms.⁽¹³⁾

One important aspect that makes unmarried women tend to use negative coping mechanisms is the lack of social support, especially from their partners. In the context of interpersonal relationships, support from a partner can be an important source of emotional strength in dealing with stress. Married women usually get this support, making it easier for them to manage the pressures that come, such as menstrual pain due to dysmenorrhea.⁽¹⁵⁾ On the other hand, unmarried women may feel less attention or a place to share in dealing with stressful situations, which ultimately encourages them to use less effective coping mechanisms such as anger, crying, or being alone.⁽¹⁶⁾

In addition, external factors such as social pressure also play a major role. Unmarried women often face stress from the environment, such as repeated questions about when they will get married, which can add to the psychological burden. They may also feel pressured by family expectations, including reprimands from parents, which worsen their emotional condition. Lack of support from friends or family when needed makes it more difficult for them to deal with these pressures positively way, triggering the use of negative coping mechanisms. This combination of internal and external factors contributes to a less effective coping pattern in managing stress.⁽¹⁶⁾

Unmarried women often face various forms of stress that can affect their mental and emotional health. This stress can come from a variety of sources, such as social expectations and pressure from the environment, especially from family and friends.⁽¹⁷⁾ In many cultures, women are often asked repeatedly about when they will get married, which can add to feelings of pressure and dissatisfaction. Lazarus and Folkman's stress theory

suggests that individuals experiencing stress will use coping mechanisms to cope with the situation.⁽¹⁸⁾ However, in the absence of adequate social support, their options are often limited to maladaptive coping mechanisms, such as social withdrawal, anger, or crying. In addition, hormonal changes that occur in women when stressed, such as increased cortisol levels, can exacerbate their emotional and physical reactions, affecting their ability to cope effectively with stress.⁽¹⁹⁾

The psychological condition of unmarried women is also affected by life experiences that may add to emotional burdens. For example, they may face difficulties in terms of career or education that are not in line with societal expectations. When they feel trapped in less-than-ideal conditions, this feeling of helplessness can lead to greater stress. Bandura's social learning theory explains that individuals learn and adopt behaviors from their environment. Without positive role models or effective support, unmarried women may be more likely to imitate negative behaviors in coping with stress, thereby worsening their situation. From a psychoneuroimmunology perspective, prolonged stress can affect the immune system and hormonal responses, thereby worsening their physical and mental health.⁽²⁰⁾

Furthermore, maladaptive coping mechanisms often chosen by unmarried women can reinforce the cycle of stress. When they choose to scream, get angry, or isolate themselves, not only do the problems they face become more severe, but their mental health is also affected.⁽²¹⁾ This can lead to further problems, such as anxiety or depression, which only add to their emotional burden. In this case, appropriate interventions are needed to help these women understand and develop healthier coping mechanisms. Knowledge of various coping strategies, both adaptive and maladaptive, as well as adequate social support can help them cope with stress more effectively.⁽²²⁾ With a psychoneuroimmunology approach, understanding the relationship between the mind, nervous system, and immune system can provide insight into how to manage stress and its impact on health holistically.

Women who are active in sports, and work, and experience menstrual pain often show increased adaptive coping mechanisms. Exercise has been shown to provide a variety of physical and mental health benefits, including reduced stress and improved mood.⁽²³⁾ According to the hormonal theory, physical activity can trigger the release of endorphins, hormones

that function as natural pain relievers and increase feelings of happiness. With increased endorphin levels, women who exercise regularly can experience a decrease in the intensity of menstrual pain, which in turn increases their ability to cope better with stress.⁽²⁴⁾ This positive experience makes them more able to adopt adaptive coping strategies, such as sharing experiences with friends or family, rather than using maladaptive mechanisms.

In addition, working women tend to develop better coping skills because they are exposed to various challenges in the professional environment. Behavioral theory explains that individuals learn from their experiences and environments. Working women are often exposed to situations that require decision-making, problem-solving, and time management, all of which can contribute to the development of adaptive coping skills. When faced with stress, they are more likely to use effective strategies, such as seeking social support from coworkers or using relaxation techniques, which support their mental well-being.

Positive exercise habits and work routines can also create a more optimistic mindset.⁽²⁵⁾ Women who are active in both of these areas tend to have higher self-confidence and feel more capable of overcoming challenges that arise. Bandura's self-efficacy theory suggests that an individual's belief in their ability to achieve goals can influence their behavior.⁽²⁶⁾ Women who believe they can manage menstrual pain and related stress are more likely to be proactive in seeking solutions, such as doing stretching exercises, meditation, or breathing techniques when experiencing pain, rather than giving in to the pain.

Thus, women who enjoy sports and have jobs can improve adaptive coping mechanisms through experiences that strengthen their self-confidence and ability to deal with stress. Hormonal theory explains how sports can relieve menstrual pain and stress, while behavioral theory suggests that experiences at work can shape better coping skills. The combination of these two factors creates a positive cycle, where women can be more effective in managing menstrual pain and stress, which has a positive impact on their overall quality of life.

Variables of adolescent age, menstrual duration, and age of menarche can contribute as risk factors that cause maladaptive coping mechanisms in women. Adolescence is often marked by emotional instability and significant hormonal changes, such as increased

estrogen and progesterone levels. The hormonal theory explains that these hormonal fluctuations can affect mood and pain perception, so adolescents who experience menstrual pain are more likely to react with less adaptive coping mechanisms, such as avoiding social activities or withdrawing from the surrounding environment.⁽²⁷⁾ Uncertainty-related to the menstrual cycle and the inability to manage pain can make them feel depressed, which then triggers a maladaptive stress response.

On the other hand, psychoneurohormonal theory emphasizes the relationship between psychology, the nervous system, and hormonal responses in influencing health. When adolescents experience prolonged menstrual pain, they may feel helpless and out of control, which can worsen their emotional and physical responses. For example, women with longer menstrual periods may experience more intense and persistent discomfort, prompting them to use maladaptive coping mechanisms, such as screaming or isolating themselves. Limited knowledge about how to manage these symptoms can exacerbate feelings of anxiety and depression, thereby worsening their overall mental and physical health. Thus, these variables play a significant role in shaping maladaptive coping patterns among adolescents.

In addition, adolescent age, duration of menstruation, and age of menarche can also affect the quality of social support received by young women in dealing with dysmenorrhea. In adolescence, individuals are often still searching for identity and building social relationships, so they may feel embarrassed or reluctant to talk about their menstrual experiences.⁽²⁸⁾ Psychoneurohormonal theory explains that the inability to express feelings or share experiences with others can trigger increased anxiety and stress, worsening their physical and emotional conditions. When adolescents do not get adequate support from family or friends, they may be trapped in negative thought patterns, which can lead to the use of maladaptive coping mechanisms such as avoiding social situations or expressing emotions in unhealthy ways. Thus, this limited social support can amplify the negative impact of biological and psychological factors associated with dysmenorrhea, making it more difficult to develop adaptive coping strategies.⁽¹⁹⁾⁽²⁹⁾

5. CONCLUSION

Based on the results of the study and discussion, the study concludes is that the status of unmarried women with dysmenorrhea tends to use maladaptive coping and emotional coping mechanisms (Emotional Focus Coping). Regular exercise and work are factors that can reduce Dysmenorrhea in women. Adolescent age, menstrual duration of more than seven days, education level, and negative coping types, are risk factors for the use of maladaptive coping mechanisms in women of childbearing age.

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Conflict of Interest

There is no conflict of interest.

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