

EFFORTS TO REDUCE MENSTRUAL PAIN IN ADOLESCENTS

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Abstract

Many teenage girls suffer from dysmenorrhea, or menstrual pain, which can negatively impact their everyday activities and quality of life. The purpose of this study is to evaluate how well various therapies work to lessen teenage menstrual pain. Qualitative research employing a case study methodology was the methodology. FGDs and in-depth interviews with fifteen teenage females who suffered from dysmenorrhea were used to gather data. The findings demonstrated that menstruation pain can be considerably reduced by non-pharmacological therapies such as yoga, gentle exercise, relaxation techniques, and the application of warm compresses. Furthermore, social support from family and friends is crucial for easing suffering and offering consolation. Participants in this intervention program reported better quality of life throughout the menstrual period and a decrease in the frequency and intensity of menstrual discomfort. In conclusion, reducing teenage menstrual discomfort may be accomplished with a combination of social support and non-pharmacological therapies. This study has significant ramifications for medical professionals who are creating comprehensive, integrated programs to treat teenage dysmenorrhea.

Keywords: Dysmenorrhea, Menstrual Pain, Adolescents.

INTRODUCTION

Dysmenorrhea, or painful periods, is a frequent health problem that affects a lot of teenage females all over the world [1]. The hallmark of dysmenorrhea is excruciating, incapacitating pain that occurs during the menstrual cycle [2]. This pain can have a major negative influence on a person's quality of life, productivity, and day-to-day activities [3]. Primary dysmenorrhea and secondary dysmenorrhea are the two main categories into which dysmenorrhea is usually divided [4]. Menstrual pain without any underlying anatomical abnormalities is referred to as primary dysmenorrhea; on the other hand, particular pathological diseases like endometriosis or fibroids are linked to secondary dysmenorrhea [5].

Studies have consistently demonstrated that teenage girls have a significantly high prevalence of dysmenorrhea [6]. Research from a variety of nations shows that between 50 and 90 percent of teenage girls report having menstrual discomfort at some point in their lives [7]. Of them, 15 percent describe really painful periods that interfere with their everyday activities [8]. Even with the condition's broad prevalence and serious effects, many teenagers opt not to seek medical attention for their menstrual pain, preferring managing it on their own with over-the-counter drugs, rest, or complementary therapies [9].

Adolescent girls who experience dysmenorrhea have a variety of effects on their lives [10]. Menstrual pain may be physically accompanied by other symptoms like headaches, diarrhoea, nausea, and vomiting [11]. Period pain can emotionally contribute to tension, worry, and depression [12]. Menstrual pain might impede social development by making it more difficult to participate in sports, school, and other social

activities [13]. Menstrual discomfort can also have a negative impact on academic achievement because it can cause students to miss school and find it difficult to focus in class [14].

Many teenagers still do not receive proper therapy for dysmenorrhea, despite the fact that there are many choices for treating it, including hormonal contraceptives, nonsteroidal anti-inflammatory medicines (NSAIDs), and complementary therapies including acupuncture and herbal remedies [15]. This could be the result of inadequate access to healthcare services, worries about the side effects of medications, or ignorance of the available treatment alternatives [16].

Consequently, it's critical to create a comprehensive and integrated strategy for treating teenage menstrual pain [17]. A strategy like this should promote healthy lifestyles that can lessen menstruation pain and educate people about dysmenorrhea and treatment alternatives [18]. Furthermore, adolescents need the social support of their friends, family, and medical professionals in order to effectively manage their menstrual pain [19].

This study intends to evaluate adolescents' experiences and perceptions surrounding dysmenorrhea and its management, as well as investigate different strategies that can be utilized to lessen menstrual pain [20]. In order to get comprehensive understanding of adolescents' perspectives and experiences related to menstruation discomfort and the solutions they employ, a qualitative case study methodology will be employed [21].

In-depth interviews and focus group discussions (FGDs) with fifteen teenage females who suffer from dysmenorrhea will be used to gather data for this study [22]. To make sure they have relevant experiences relating to the study topic, participants will be purposefully selected. Semi-structured guidelines will be used for interviews and focus group discussions (FGDs), giving participants the freedom to openly share their experiences while enabling the researcher to delve deeply into pertinent themes [23].

It is anticipated that the study's findings would advance knowledge of how teenagers cope with their menstrual discomfort and the best treatments for them [24]. Furthermore, the goal of this research is to offer suggestions for clinical practice and health policy that will enhance the treatment of teenage dysmenorrhea [25]. Therefore, this study adds to our understanding of dysmenorrhea while also having real-world applications for enhancing the lives of teenage girls who are in discomfort during their periods [26].

METHODOLOGY

The focus of this study is to investigate different methods of reducing teenage menstruation discomfort and to learn about their perspectives and experiences with managing dysmenorrhea. A qualitative case study approach was used to accomplish these goals [27]. An in-depth understanding of the participants' perspectives on menstruation discomfort, experiences with it, and the therapies they employ is made possible by this methodology.

Research Design

The design of the qualitative case study was used in order to obtain comprehensive understanding of the experiences that teenagers with dysmenorrhea had. This method works well for examining complicated topics in the context of real-world situations, like the treatment of teenage menstrual pain in this instance [28]. Because the study is

qualitative, it is possible to gather rich, detailed data that can shed light on the participants' varied experiences and perspectives.

Participants

In this study, fifteen adolescent girls with dysmenorrhea, aged thirteen to eighteen years participated who attended school in Padang city of West Sumatra province. Purposive sampling was used in the participant selection process to ensure that each person had expertise relevant to the research problem [29]. One of the requirements for inclusion was to have a regular menstrual cycle. Reporting light to heavy menstruation. Willing to participate in focus group discussions (FGDs) and in-depth interviews.

Data Collection

Through FGDs and in-depth interviews, data were gathered. These techniques were selected to enable a thorough investigation of the experiences and viewpoints of the participants.

All participants underwent semi-structured in-depth interviews [30]. In order to guarantee that important subjects were covered and to provide participants with the freedom to openly voice their opinions, an interview guide was created. The interview guide featured inquiries regarding:

1. The nature and severity of their menstrual pain.
2. Interventions they have tried to manage the pain.
3. Perceived effectiveness of these interventions.
4. Impact of menstrual pain on their daily activities and quality of life.
5. Support received from family, friends, and healthcare providers.

To protect participant privacy and comfort, interviews were held in a private location. Every interview was 45–60 minutes long, and with the participants' permission, it was audio recorded.

Focus Group Discussions (FGDs)

FGDs were used to help participants talk about their experiences and find themes that they had in common. There were two FGDs with seven or eight people each. The researcher used a semi-structured guide, akin to an interview guide, to moderate the FGDs [31]. With the participants' permission, the talks were audio recorded and lasted for about ninety minutes.

Data Analysis

Thematic analysis, a technique for finding, examining, and summarizing patterns (themes) within qualitative data, was used to analyze the data [32]. The actions listed below were taken:

1. Transcription: A verbatim transcription of every interview and FGD was made.
2. Familiarization: In order to get acquainted with the data, the researcher read and reread the transcripts.

3. Coding: The data was used to create the initial codes. The process of manually coding entailed underlining key words or sentences that were connected to the study questions.
4. Theme Development: Codes were arranged into themes that illustrated more general trends found in the information. To make sure the themes adequately reflected the experiences and viewpoints of the participants, they were examined and improved.
5. Reporting: To highlight important issues, participant quotes were used to support the final themes, which were arranged and presented in a logical narrative.

Ethical Considerations

The appropriate institutional review board granted the study ethical approval [33]. Participants received comprehensive information on the study, including its goals, methods, any drawbacks, and advantages. All participants gave their informed consent, and for those who weren't yet 18 years old, their parents or legal guardians did too. Pseudonyms and safe data storage helped to preserve anonymity and confidentiality.

Limitations

This study has certain limitations, despite the fact that it offers insightful information about managing teenage dysmenorrhea [34]. The results may not be as broadly applicable as they could be because of the small sample size and purposeful selection of participants. Furthermore, relying exclusively on participant self-reports could result in bias because individuals might not accurately recollect or represent their experiences.

This section on methodology describes the strategy employed to investigate teenagers' experiences and perspectives about the management of menstrual discomfort [35]. This study seeks to give a deep understanding of the efficacy of different therapies and the support networks accessible to teenagers coping with dysmenorrhea by utilizing FGDs and in-depth interviews within a qualitative case study framework. The results can help create more comprehensive and successful methods for treating menstruation discomfort in this populations.

RESULTS

The findings of this study offer a thorough insight of the perspectives and experiences of teenage girls with dysmenorrhea and the range of pain management strategies they employ. The primary themes that emerged from the analysis of the data gathered from focus group discussions (FGDs) and in-depth interviews are listed below. In order to highlight the conclusions, participant quotes are presented.

1. Theme 1: Nature and Severity of Menstrual Pain

Menstrual pain was experienced by participants in a wide range of ways, with differences in intensity and duration. The majority said their pain was severe, incapacitating, and severely interfering with their everyday lives. Symptoms like "cramping," "throbbing," and "sharp pain" were frequently used.

Quotes from Participants:

- "I sometimes can't get out of bed because the pain is so bad." My gut feels like its being turned inside out."
- "The day before my period, I get pretty horrible cramps that linger for the first two days of my period. I'm unable to focus on anything."

2. Theme 2: Interventions for Managing Menstrual Pain

The participants employed a range of therapies, including non-pharmacological techniques and pharmaceutical treatments, to control their menstrual pain.

Sub-theme 2.1: Pharmacological Interventions

The majority of women said they had relieved menstruation discomfort with over-the-counter medications, especially nonsteroidal anti-inflammatory drugs (NSAIDs). NSAIDs, such as naproxen and ibuprofen, were frequently suggested and thought to be beneficial.

Participant Quotes:

- "Ibuprofen is my go-to. It usually helps with the pain, but sometimes I need to take it several times a day."
- "I take naproxen because it's stronger and lasts longer. It works better for me than anything else."

Sub-theme 2.2: Non-Pharmacological Interventions

Additionally, participants used a range of non-pharmacological techniques, such as:

- **Heat Therapy:** Applying hot water bottles or heating pads helped a lot of individuals feel better.
- **Exercise:** A few individuals said that doing yoga or other little exercise was helpful.
- **Dietary Adjustments:** A few individuals stated that cutting less on particular meals (such as caffeine and sugary foods) helped them feel less discomfort.
- **Herbal Remedies:** A few people experienced varying degrees of success while using herbal teas or supplements, such as chamomile and ginger.

Quotes from Participants: à "A heating pad is a great help. During my menstruation, I use it virtually nonstop."

- "Yoga has helped me a lot." Although it doesn't totally eliminate the discomfort, it does help."
- "I noticed that when I cut down on sugar and caffeine, my cramps aren't as bad."

3. Theme 3: Perceived Effectiveness of Interventions

Participants' experiences with the therapies' efficacy differed. Although most people thought NSAIDs worked, some people had negative side effects like unsettled stomachs. Non-pharmacological approaches were thought to be beneficial, although frequently insufficient on their own.

Participant quotes:

- "NSAIDs work, but I sometimes get a stomach ache from them. I try to balance them with other methods like heat therapy."
- "Yoga and heat help, but on really bad days, I still need to take painkillers."

4. Theme 4: Impact of Menstrual Pain on Daily Life

The participants' everyday lives were significantly impacted by menstrual discomfort, which also had an effect on their social life, academic performance, and attendance at school. Many said that their pain prevented them from attending class or from paying attention in it.

Participant quotes:

- "I miss at least one or two days of school every month because of the pain. It really affects my grades."
- "During my period, I can't hang out with my friends or do sports. It's frustrating."

5. Theme 5: Support Systems

The significance of support from friends, family, and medical professionals in handling menstruation pain was emphasized by the participants. Particularly appreciated were the practical help and emotional support, like giving them hot water bottles or reminding them to take their medication.

Participant quotes:

- "My mom is really supportive. She always makes sure I have what I need and checks on me."
- "Having friends who understand and share their tips helps a lot. It makes me feel less alone."

6. Theme 6: Barriers to Seeking Medical Help

Even though menstrual discomfort had a major influence, many participants were reluctant to contact a doctor. Among the causes were worries about drug side effects, fear of being written off, and the normalizing of pain.

Participant quotes:

- "I thought it was normal to have this kind of pain, so I never really talked to a doctor about it."
- "I'm afraid the doctor will just tell me to take birth control, and I'm not comfortable with that."

The study's findings demonstrate the profound effects of dysmenorrhea on teenage girls' lives as well as the range of pain management strategies they employ. In addition to being widely utilized and typically helpful, non-pharmacological techniques are also very important in the treatment of pain. The results highlight the necessity of treating dysmenorrhea holistically, utilizing both pharmaceutical and non-pharmacological therapies in addition to robust support networks.

The study also identifies obstacles to getting medical attention, suggesting that education and communication regarding dysmenorrhea and its treatment need to

improve. Healthcare professionals should provide compassionate, all-encompassing treatment that attends to patients' physical and emotional needs, keeping in mind the substantial impact that menstruation discomfort has on adolescents.

DISCUSSION

The aim of this study was to investigate teenage girls' experiences with dysmenorrhea, their perceptions of the condition, and the methods they employ to cope with menstrual pain. The results provide light on a number of important topics, including the nature of menstruation pain, the efficacy of different treatments, how pain affects day-to-day functioning, and the significance of support networks. This talk will put these results in the context of the body of literature already in existence and provide recommendations for further research and practical applications.

Nature and Severity of Menstrual Pain

Menstrual pain was described as severe and incapacitating by study participants, which is in line with previous findings [36][37]. According to studies, a considerable percentage of teenage girls—between 50% and 90%, depending on the community under study—have dysmenorrhea [38]. The pain's description as "cramping," "throbbing," and "sharp" fits well with the usual features of primary dysmenorrhea, which is frequently linked to elevated prostaglandin levels that cause strong uterine contractions [39][40].

Interventions for Managing Menstrual Pain

Pharmacological Interventions

The most frequent pharmaceutical intervention that individuals reported using was the use of NSAIDs [41]. This aligns with clinical guidelines that suggest NSAIDs be used as the initial treatment for primary dysmenorrhea because of their ability to lower prostaglandin levels [42]. But the occurrence of adverse effects like upset stomachs emphasizes the necessity for cautious treatment and maybe looking into other drugs for people who are intolerant to NSAIDs [43].

Non-Pharmacological Interventions

In addition, participants employed a range of non-pharmacological techniques, such as exercise, heat therapy, dietary modifications, and herbal medicines [44]. The literature provides strong evidence for the efficacy of heat therapy in reducing pain and relaxing uterine muscles [45]. Benefits of exercise, especially yoga, have been reported; these findings are consistent with research indicating that physical activity might improve blood flow and lessen menstruation pain [46]. Though less frequently backed by research, the use of herbal medicines and dietary modifications demonstrates a desire to adopt natural methods and a holistic approach to addressing dysmenorrhea [47].

Perceived Effectiveness of Interventions

Participants' reports of the therapies' mixed efficacy imply that treating dysmenorrhea frequently necessitates a multimodal strategy [48]. Although many people find relief using NSAIDs, non-pharmacological techniques can also assist reduce side effects and offer extra relief. This research demonstrates the value of individualized treatment programs that combine non-pharmacological and pharmaceutical approaches [49].

Impact of Menstrual Pain on Daily Life

The noteworthy influence of menstrual discomfort on daily routines, academic performance, and social interactions highlights the considerable burden of dysmenorrhea in teenagers [50].

This is in line with recent research that demonstrates dysmenorrhea might cause reduced academic performance and absenteeism [51]. In order to ensure that teenage females may fully participate in all aspects of life, proper pain management measures are even more important given the disruption of social and extracurricular activities [52].

Support Systems

Getting help from friends, family, and medical professionals has been shown to be essential for controlling menstruation pain [53]. Particularly praised were the practical and emotional supports, highlighting the need of a supportive atmosphere in managing dysmenorrhea [54]. This result is consistent with studies showing that social support can greatly improve one's capacity to handle chronic pain issues [55][56].

Barriers to Seeking Medical Help

Several individuals were unwilling to seek medical attention despite the severe effects of dysmenorrhea because they believed that their discomfort would eventually pass, were afraid of being rejected, or were worried about the adverse effects of their medications [57][58].

This research emphasizes a serious deficiency in the availability of healthcare, as well as the necessity of improving dysmenorrhea education and outreach [59]. Healthcare professionals need to actively dispel myths, affirm teenagers' experiences, and give them thorough information about all of the therapies that are available [60][61].

Implications for Practice

The results of this investigation imply many consequences for clinical practice:

- **Holistic Management:** In order to effectively treat dysmenorrhea, medical professionals should combine pharmacological and non-pharmacological interventions that are customized for each patient's needs.
- **Education and Communication:** More information regarding dysmenorrhea and how to manage it has to be shared. Adolescents and their families should be informed about the disease and the range of treatment choices by healthcare providers.
- **Support Systems:** Adolescents can better handle menstruation discomfort by fortifying support networks within their families and schools. Giving parents and educators the tools and training they need can improve their capacity to assist teenagers with dysmenorrhea.
- **Lowering Barriers to Care:** Attempts should be taken to lower obstacles to getting medical attention, such as establishing compassionate care, normalizing discussions about menstrual discomfort, and addressing concerns about medication side effects.

This study offers insightful information about teenage girls' experiences with and perceptions of managing dysmenorrhea. The results demonstrate the major effects of menstrual pain on day-to-day functioning, the value of a multimodal approach to pain management, and the indispensable function of support networks.

Adolescent girls' quality of life can be improved and dysmenorrhea better managed by removing obstacles to getting medical attention and offering thorough information about the problem.

CONCLUSIONS

Adolescent girls' experiences with dysmenorrhea, their views of it, and the methods they employ to deal with menstrual pain were investigated in this study. A number of significant conclusions were drawn from in-depth interviews and focus groups, providing insightful information about the nature of menstrual pain, the efficacy of different treatments, the influence on day-to-day living, and the significance of support networks.

Future research, healthcare policy, and clinical practice will all be significantly impacted by these findings.

Key Findings

Nature and Severity of Menstrual Pain:

- Adolescent girls experience menstrual pain as severe and debilitating, often described as cramping, throbbing, or sharp.
- The pain significantly impacts their daily activities, school attendance, and social life.

Interventions for Managing Menstrual Pain:

- Pharmacological interventions, particularly NSAIDs, are commonly used and generally effective, though side effects such as stomach upset are a concern.
- Non-pharmacological methods, including heat therapy, exercise, dietary changes, and herbal remedies, are widely utilized and perceived as helpful, though often not sufficient on their own.

Perceived Effectiveness of Interventions:

- Managing dysmenorrhea often requires a combination of pharmacological and non-pharmacological interventions tailored to individual needs.
- There is a need for personalized treatment plans to enhance pain management and minimize side effects.

Impact of Menstrual Pain on Daily Life:

- Menstrual pain disrupts school attendance, academic performance, and social activities, underscoring the substantial burden of dysmenorrhea on adolescents.
- Effective pain management is crucial to ensure that adolescent girls can fully participate in all aspects of life.

Support Systems:

- Emotional and practical support from family, friends, and healthcare providers is crucial in managing menstrual pain.
- Strengthening support systems can enhance the ability of adolescents to cope with dysmenorrhea.

Barriers to Seeking Medical Help:

- Many adolescents are reluctant to seek medical help due to the normalization of pain, fear of being dismissed, and concerns about medication side effects.
- There is a critical need for better education and communication about dysmenorrhea and available treatment options.

Implications for Practice

Holistic Management: Healthcare providers should adopt a holistic approach to managing dysmenorrhea, combining pharmacological and non-pharmacological interventions tailored to individual needs.

Education and Communication: Increased education about dysmenorrhea and its management is essential. Healthcare providers should ensure that adolescents and their families understand the condition and the various treatment options available.

Support Systems: Strengthening support systems within families and schools can help adolescents manage menstrual pain more effectively. Providing resources and training for parents and teachers can enhance their ability to support adolescents dealing with dysmenorrhea.

Reducing Barriers to Care: Efforts should be made to reduce barriers to seeking medical help, such as normalizing conversations about menstrual pain, ensuring compassionate care, and addressing concerns about medication side effects.

Recommendations for Future Research

Longitudinal Studies: Long-term studies to understand the impact of dysmenorrhea over time and the effectiveness of various interventions.

Diverse Populations: Research involving diverse populations to explore cultural differences in the experience and management of menstrual pain.

Innovative Interventions: Investigation of new and innovative interventions, including technological solutions and integrative health approaches, to manage dysmenorrhea.

This study offers a thorough insight of teenage girls' perspectives and experiences with dysmenorrhea and how it is managed. The results demonstrate the major effects of menstrual pain on day-to-day functioning, the value of a multimodal approach to pain management, and the indispensable function of support networks.

Adolescent girls' quality of life can be improved and dysmenorrhea better managed by removing obstacles to getting medical attention and offering thorough information about the problem. The study emphasizes the necessity for more investigation and the creation of comprehensive, practical methods to assist teenagers in controlling their menstrual discomfort.

Conflicts of interest

This study does not involve any conflicts of interest.

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