



Original research article

The influence of dysmenorrhea on women's emotions and experiences

Kateřina Staňková¹, Alena Hricová¹ * , Tomáš Mrhálek² ¹ University of South Bohemia in České Budějovice, Faculty of Health and Social Sciences, Institute of Social and Special-paedagogical Sciences, České Budějovice, Czech Republic² University of South Bohemia in České Budějovice, Faculty of Education, České Budějovice, Czech Republic

Abstract

This article aims to provide a comprehensive description of the multifaceted influence of dysmenorrhea on women's emotional states and their overall lives, with a focus on both immediate and long-term effects. Immediate impacts include changes in mood and self-perception during menstruation. Changes in self-esteem and identity are among the long-term effects. The research employed a qualitative design involving in-depth interviews with 18 women who have experienced years of painful menstruation. Data were analysed using a combination of thematic analysis (TA) and interpretative phenomenological analysis (IPA), providing a robust framework to understand the nuanced experiences of the participants.

Our findings revealed that dysmenorrhea significantly affects emotional states, leading to symptoms of depression and anxiety, heightened emotional reactivity during menstrual periods, and negative effects on self-perception and body image. These emotional disturbances are not only limited to the duration of menstruation but extend beyond this, influencing women's daily lives, relationships, and overall mental health. The study highlights how dysmenorrhea can exacerbate feelings of vulnerability, emotional instability, and social withdrawal, contributing to a persistent negative self-image and compromised self-esteem.

Moreover, the chronic nature of dysmenorrhea has been linked to deeper psychological impacts, including a diminished sense of self-efficacy and identity disruption. Women report a pervasive sense of loss of control over their bodies, leading to feelings of helplessness and frustration. These experiences underscore the importance of addressing both the physical and psychological aspects of dysmenorrhea in medical and psychological interventions

Keywords: Anxiety symptoms; Body image; Depressive symptoms; Dysmenorrhea; Emotions

Introduction

Menstruation is an integral and significant part of every woman's life and affects her physical and mental state for roughly seven days every month (Ussher, 2024). Dysmenorrhea, i.e., painful menstruation, is such a significant problem for some women that their doctors often exempt them from working during menstruation (Eryilmaz et al., 2010). Dysmenorrhea, like menstruation in general, remains a taboo subject and is not given enough professional attention (except in medical fields and some quantitative forms of psychological research). The psychology of pain (in general) and pain linked to somatic diseases has been well studied. (Manchikanti et al., 2002). Thanks to this research, we know that pain has a major impact on emotional experiences (Iacovides et al., 2015) and correlates with a negative self-concept, self-image, and self-confidence, not only during the acute pain phase but also in the long term (Riva et al., 2011). Although the psychology of pain is well researched, dysmenorrhea and its specific psychological

and emotional consequences have not been sufficiently studied. There is a lack of research focused on how dysmenorrhea affects self-image, self-esteem, and the overall quality of life in women who suffer from severe menstrual pain. This research aims to fill this gap by providing qualitative evidence on how dysmenorrhea affects the emotional and psychological states of women.

The aim of the article is to describe the breadth of the impact of dysmenorrhea on women's psyche. The intention is not only to describe the psychological experience that accompanies the severe pain (acute impact of dysmenorrhea), but also the broader consequences of dysmenorrhea related to the overall quality of life and changes in self-perception. The following research question was established: "How does dysmenorrhea affect the emotional and psychological states of women, and what is its impact on self-esteem and overall quality of life?"

Dysmenorrhea

Dysmenorrhea is a menstrual cycle disorder that occurs (to varying degrees) in up to 25% of women of reproductive age.

* **Corresponding author:** Alena Hricová, University of South Bohemia in České Budějovice, Faculty of Health and Social Sciences, Institute of Social and Special-paedagogical Sciences, Jírovčova 1347/24, 370 04 České Budějovice, Czech Republic; e-mail: ahricova@zsf.jcu.cz; <http://doi.org/10.32725/kont.2024.043>

Submitted: 2024-05-21 • Accepted: 2024-09-13 • Prepublished online: 2024-09-13

KONTAKT 26/4: 376–382 • EISSN 1804-7122 • ISSN 1212-4117

© 2024 The Authors. Published by University of South Bohemia in České Budějovice, Faculty of Health and Social Sciences.

This is an open access article under the CC BY-NC-ND license.

The pain may begin the day before menstruation, but most often, it occurs the day menstruation starts and lasts 1–3 days with varying intensity, ranging from vague pressure in the lower abdomen to strong cramping that can resemble birth pain and contractions in intensity. Dysmenorrhea is often accompanied by several other unpleasant physiological symptoms, such as nausea, vomiting or diarrhea, headaches, dizziness, tachycardia, sensations of heat, excessive sweating, chills, fever, or fainting. Psychologically, dysmenorrhea is associated with insomnia, serious disorientation, impaired perception, and attention deficit disorder (Kolář et al., 2010).

Dysmenorrhea may also be accompanied by feelings of hostility, irritability, anxiety, depression, apathy, and exhaustion. In general, dysmenorrhea leads to reduced well-being and has a negative impact on physical and mental well-being, performance and success at school and work, social activities, and family and partner relationships. It also reduces the ability to take part in sports and leisure activities that are normally part of a woman's everyday life (Kolář et al., 2010; Roztočil et al., 2011).

Dysmenorrhea and mental health

Dysmenorrhea is associated with increased mood swings, depression, worries and fears, decreased zest for life, anxiety, and distress. Depression is known to lower the pain threshold and enhance its perception. It also tends to reduce the effectiveness of analgesics. Neuroticism, anxiety, depression, and higher levels of maladaptive stress responses are some of the most common psychological risk factors linked to dysmenorrhea (Bahrami et al., 2017; Ibrahim et al., 2015; Rogers et al., 2023; Roztočil et al., 2011).

Dysmenorrhea is also more common in women with psychiatric disorders, including schizophrenia and obsessive-compulsive disorder (OCD), suicidal ideation, eating disorders, impulsive sensation seeking, pre-existing physical and medical conditions (somatic symptoms), somatizing tendencies, and higher levels of aggression (propensity to use aggression or aggressive behavior) (Bajalan et al., 2019a).

Other risk factors reported in patients with dysmenorrhea are traumatic attachment and bonding, post-traumatic stress disorder (PTSD), sexual abuse and sexual trauma, as well as traumatic experiences arising directly from painful menstruation and experiences associated with learned behaviors, anticipatory anxiety, and phobias (Bajalan et al., 2019b; Gollenberg et al., 2010).

Studies also show that women with higher levels of stress, anxiety, depression, and aggression have a higher incidence of menstrual problems and menstrual cycle disorders than women without these psychological burdens (Hartlage et al., 2004; Jung and Kim, 2004; Pinkerton et al., 2010; Sigmon et al., 2000). In addition, studies involving predominantly adolescent girls showed a significant association between primary dysmenorrhea and mood disorders, emotional lability, problems with self-concept, feelings of guilt, self-rejection and self-hatred, suicidal thoughts, and overall reduced well-being (Harlow and Matanoski, 1991; Iacovides et al., 2014; Kaplan and Manuck, 2004; Mou et al., 2019; Wang et al., 2004). Mou et al. (2019) also found that the frequency and severity of dysmenorrhea were positively correlated with feelings of loneliness and interpersonal problems. The meta-analysis conducted by Bajalan et al. (2019a) describes broader evidence for the connection between dysmenorrhea and mental health, bringing together a summary of data supporting the link between dysmenorrhea and experienced stress.

Psychological problems such as depression, anxiety, and other negative emotions are risk factors and potential causes of primary dysmenorrhea. Negative emotions, depression, and anxiety can worsen pain sensitivity and intensify perceived pain. The bidirectional relationship has been described by Bloom et al. (1978), who indicate that emotional responses triggered by menstrual pain can cause psychological and subsequent somatic problems. Therefore, it is appropriate to focus more on explaining the mechanisms of this effect and understanding the individual consequences of dysmenorrhea on women's psyche and the quality of their life.

Dysmenorrhea and self

Very few studies (mostly older) have focused on the direct effects of dysmenorrhea on the psyche. While the impact of dysmenorrhea on the self has been a topic of study for more than half a century, research in this area is rather marginal today. As early as 1974, Starke found that women suffering from dysmenorrhea have lower long-term self-esteem levels than women who do not experience painful menstruation. Another study conducted in Israel on 370 female college students suffering from dysmenorrhea also found lower self-esteem in those with dysmenorrhea (Crisson and Keefe, 1988). Starke (1974) discovered that women suffering from dysmenorrhea have disturbed self-concept and are less satisfied with themselves and their bodies. The reduced quality of life caused by dysmenorrhea can lead to negative emotional experiences and increased dissatisfaction. Menstruation thus serves as an identifier of a woman's psychological and physical well-being and simultaneously as a mediator of psychological problems (psychosomatic mediator of body-mind problems) (Bloom et al., 1978).

Newer studies confirm and expand upon these findings. Bellis et al. (2020) found that unmet needs of adolescent girls with dysmenorrhea can lead to significant psychological difficulties. Similarly, Çınar et al. (2021) reported that factors related to dysmenorrhea include higher levels of stress and anxiety, confirming earlier findings on the link between dysmenorrhea and negative psychological health (Bajalan et al., 2019a). Smith et al. (2009) reported a connection between dysmenorrhea and negative body image. Women suffering from dysmenorrhea also exhibit increased feelings of helplessness (Nazarpour and Khazai, 2013). In another study, women with and without dysmenorrhea measured their self-esteem levels before, during, and after menstruation. The results showed that self-esteem varied among women and tended to increase after menstruation ended in both groups (Naghizadeh, 2019). Mohammadipour et al. (2023) explored the connection between negative body image and metacognitive coping and found both a direct effect of these factors on the perceived intensity of dysmenorrhea and on pain self-efficacy.

Materials and methods

Research design and procedure

The research was carried out using a qualitative design. The qualitative research strategy was chosen for this study because it allows for a deep exploration of the subjective experiences and emotional states of women suffering from dysmenorrhea. The rationale behind this choice is that dysmenorrhea is not just a physical condition but one that profoundly affects women's psychological well-being. Qualitative methods, particularly in-depth interviews, provide rich, detailed data that can cap-

ture the complexity and nuance of these experiences, which are often missed by quantitative approaches. This approach aligns with the study's aim to understand the broader impact of dysmenorrhea on women's lives, beyond just the physical symptoms.

Questions were slightly revised based on data analysis. Interviews took place between November–December 2021. Data collection was carried out using in-depth interviews, which focused on describing experiences associated with dysmenorrhea. Informants were asked the basic question: How do you experience dysmenorrhea and what impact does it have on you? We followed up with additional questions as needed based on the information provided.

Interviews were carried out from August 2021 to October 2021. Interview lengths ranged from 30 minutes to 1 hour, depending on the ability of the informants to describe their experiences. With consent, the conversations were recorded and transcribed verbatim. Throughout the research, we observed the ethical rules of informed consent and anonymization; the ability to withdraw from the research was available at any time, as was the ability to revise information.

Sample

The research used a combination of intentional selection and snowball sampling. The research sample included women who regularly suffer from primary dysmenorrhea (or who had been suffering from it for at least one year). The goal was to get as much of a homogeneous sample as possible in terms of age, with a primary focus on women with more severe dysmenorrhea. For assessing the severity of dysmenorrhea, a six-degree scale of menstrual pain was used. Only informants who reported the two highest levels of pain, “very strong” and “extremely strong”, were included in the research sample. The sample was selected based on availability; however, we also wanted to focus on a homogenous age group of women who had not yet given birth, as menstrual issues often change after childbirth.

The research group included 18 women (aged 20–31 years) who reported dysmenorrhea lasting from two years to 18 years. Of these women, 10 were employed, while the rest were university students. Eight of the informants were in a romantic relationship, and all of them were currently childless. Theoretical saturation of the data was achieved when new interviews stopped providing new information or themes and began to repeat already identified patterns and categories. This point was reached after processing 18 interviews; subsequent interviews did not bring new insights to the analyzed themes.

Data analysis

Thematic analysis was utilized with elements of Interpretative Phenomenological Analysis (IPA) (Fernández-Martínez et al., 2020). IPA combines idiographic and interpretivist approaches and was used to anchor the informants' subjective experiences and perceptions of dysmenorrhea within the framework of psychological symptomatology. The perception of dysmenorrhea and its impact were analyzed bottom-up, taking into account the informants' experiences. These perceptions were then thematically linked into three main themes identified by the informants: Emotional changes, the effects of dysmenorrhea on Self-efficacy, and Body Image. These categories were then described with the aim of capturing key elements of the informants' experiences.

Results

Sixteen informants rated their symptoms during dysmenorrhea at the highest degree of “extreme pain”. Two informants described it as “strong pain” and experienced associated menstrual problems such as diarrhea, vomiting, nausea, feeling faint, and fainting, which significantly affected their lives. Informants also reported headaches, back pain, painful stools, physical hypersensitivity, dizziness, weakness, sedation, chills, blurred vision, cold sweats, severe fatigue, impaired concentration, impaired cognitive activities, and sleep disturbances during menstruation.

Informants described both positive and negative consequences of dysmenorrhea and its management. The intention was to present the variability of experiences and link these to the long-term consequences of menstrual pain on the behavior and lives of informants (Stankova, 2022).

Emotional experience of dysmenorrhea

Depressive symptomatology

As a result of painful menstruation, informants reported significant changes in their lives, including increased emotional vulnerability, anxiety, and depressive symptoms. They described worsened moods: “When I don't have it, I'm always smiling, always positive, extroverted, nice, but when it hurts, I feel melancholy and like I'm dying”, and a tendency to emphasize negative stimuli and react more strongly to them: “During painful [menstruation] I tend to react with sadness..., I'm more sensitive to words, and things hurt me more, offend me [more easily].” We observed an increase in emotional lability: “It [menstruation] makes me moodier, and I have more frequent mood swings.”

Informants also associated menstruation pain with the re-emergence of negative memories and thoughts, which were often associated with feelings of loneliness. Menstruation pain heightened any momentary feelings of loneliness and intensified feelings of prior social loss and betrayal and painful memories of failed relationships: “I remember my parents, my ex-boyfriend who left me, or the friend who betrayed me; I start remembering things that don't bother me normally but [menstruation] pain brings back memories.” In addition to memories of the past, women with dysmenorrhea also reported depressing fantasies: “When I experience these states with the pain, it feels like I am dying; it always takes me to such an experience, as if you already had a deadly disease, as if it was supposed to be your end because the pain is so great that it makes you think of death, sadness, suffering; it makes me think about death at that moment, to perceive it and imagine it will come one day and that the person will die.” Informants reported that painful menstruation also made them question the quality of their current relationships “... to what extent your friends are true friends”.

Loneliness also appeared in an existential context, with menstruation pain causing feelings of alienation from their loved ones: “Even if someone tries to help you, it does not help, so you have feelings of loneliness and that no one can really help and relieve your [pain], that you are all alone.” These melancholy feelings were also associated with an awareness of the limitations caused by their acute pain. Additionally, menstrual pain was seen to reduce the satisfaction coming from positive stimuli: “It [menstrual pain] definitely takes away the joy of life and the desire to do something about it, and when I do it, I do not even enjoy it.”

Anxious symptomatology

During dysmenorrhea, women experience an inability to relax. In addition to the effect of the pain itself, there is also psychological tension, which is accompanied by anxiety and fears. The most common sources of anxiety are feelings of helplessness and health concerns.

Sometimes women are critical of themselves because they cannot resolve their health problems: *"In the long term, I also feel great remorse towards myself because I believe that psychosomatics might play a role in it."* Personal failure is also associated with an inability to overcome pain and function normally: *"What I feel is also a bit like despair that you need to do something, and you want to do something, but pain completely paralyzes you."* Women with dysmenorrhea also perceive themselves: *"... as someone with whom there is something wrong."* The informants mentioned these feelings in connection with the fact that there is *"... certainly something wrong with them, with their bodies or with their psyche and feelings"*. Women often experience intense feelings of pathology, abnormality, and dysfunction related to their bodies and minds. In this regard, informants noted that the negative impact on their lives occurred either immediately, as a direct result of the pain, or indirectly due to the lack of control caused by the pain.

Emotional reactivity

Women reported reduced ability to regulate emotions compared to their normal emotional state when not menstruating: *"I don't have that kind of control..."*, *"I'm tired of correcting it"*, *"Sometimes something makes me angry or bothers me, but somehow I process it rationally with tolerance, but when I have my period, I don't want to control my emotions and behaviour"*.

Self-concept and self-experience

The consequence of dysmenorrhea on self-esteem and self-concept occurs due to transformations, both on the affective and cognitive levels. Some women speak of the *self* during menstruation and the *self* outside menstruation as two separate components of the *self*. The *self* during menstruation is out of harmony with the ideal *self* and the *self* as seen by their significant others. A woman's identity during menstruation is perceived as involuntary, out of control, and unchosen.

Self-esteem and self-efficacy

Women experience distrust of their bodies due to menstrual "dysfunction", coupled with feelings of helplessness and defenselessness based on their lack of control over their bodies.

Perceptions of being a failure, or failing as a woman, because dysmenorrhea hypothetically threatens their ability to fulfill their biological role as a mother and a woman: *"For me, it is also connected with the fact that I would not be able to have children and that I would fail as a woman, that I would not be a good enough woman"*, *"Because I felt weak when I couldn't handle my period while other girls could. I didn't really know if it hurt me more than it should have or if it was something else"*.

However, a positive impact of dysmenorrhea on self-esteem and self-concept has also been identified. Some women see dysmenorrhea as a source of personal development, providing a sense of personal resilience. In such cases, informants see themselves as strong and able to overcome and manage pain. Thanks to this, these women appreciate themselves much more and gain higher self-confidence and self-esteem in overcoming other obstacles and other unfavorable or challenging situations. These informants analogize the ability to overcome pain with the ability to *(overcome oneself)* deny oneself and perform despite the presence of obstacles *"and cope*

with difficult challenges and burdens...", *"Maybe it's knowing that I survived it, that I managed that period, and that it wasn't always easy. Putting these things together, I know that I did it, and that I can handle other challenges too"*.

Body image

Informants perceive their bodies in very different ways. While some women evaluate their bodies wholly negatively, other women have a positive relationship with their bodies. The negative aspects are related to their body being a source of pain: *"I like it [my body] less because it makes my period painful."* At the same time, the body is also perceived as a cause of pain (intentionally/consciously). As a result, women experience anger at their bodies since they perceive the pain as *(a slap in the face)*, which is associated with feelings of deep injustice *"and I like it [my body] less – because I wonder why me. And less in the sense that I don't know why my body is doing this to me"*.

One of the informants reported that menstruation felt like a *scam* because she took care of her body, and despite all the care and efforts made to improve her condition and eliminate dysmenorrhea, her body failed to reciprocate and caused her further pain: *"At the same time, sometimes I'm angry with my body, yes, because I always say to myself", "Oh my God, I do what I can for you, I eat healthily, I do sports, I always try to find those ways, and it's the same every month"*.

Dysmenorrhea also leads some women who already have problems with body dysphoria to deepen their negative feelings: *"It has an impact on my relationship with the body. In general, I don't perceive my body very well, and during menstruation, especially painful menstruation, I like my body a little less."* However, some informants reported that experiencing painful menstruation gives them a positive view of their body and improves their relationship with it. This is expressed both affectively (appreciation of the body) and behaviorally (actions towards the body), resulting in greater compassion, sensitivity, and love for their body. This leads to appreciation, admiration, and gratitude towards their body: *"In the long run, it seems to me that I now appreciate my body more because I realize all that this body has to endure, what it has to deal with, I appreciate what it has to handle and bear..."*

Discussion

Mood swings and depressive symptoms are commonly reported in young women with dysmenorrhea (Bellis et al., 2020; Pakpour et al., 2020; Romans et al., 2012). Negative thoughts, which may be related to the intensity of pain, loss of control over the situation, and feelings of fear and dissatisfaction with one's health, can also occur in women with physiological menstruation, according to Romans et al. (2012). In addition to the above-mentioned, we also noted feelings of shame, which is part of anxiety and influences self-efficacy. According to Ullah et al. (2021), shame may be one factor influencing feelings linked to dysmenorrhea. In general, when experiencing pain, if a person is confronted with shame, the pain experienced is more intense (Osman and El-Houfey, 2016). In addition to depressive symptoms, there are also anxiety symptoms. Our findings are consistent with previous studies, such as the work of Bellis et al. (2020), which showed that unmet needs of adolescent girls with dysmenorrhea can lead to significant psychological difficulties. Similarly, Çinar et al. (2021) found that factors associated with dysmenorrhea include higher levels of stress and anxiety, confirming earlier findings on the link between dysmenorrhea and negative psychological health

(Bajalan et al., 2019b). These studies support our conclusions that dysmenorrhea can have serious impact on the emotional and psychological states of women. Further studies, such as the research by Chen et al. (2018), have shown that women with dysmenorrhea often experience increased levels of loneliness and interpersonal problems during menstruation. This finding supports our thesis that dysmenorrhea has complex impacts on the emotional and social aspects of women's lives. Additionally, the work of Harlow and Park (1996) suggests that there is a significant correlation between the physical symptoms of dysmenorrhea and an increased likelihood of depressive symptoms. This research emphasizes that physical and psychological symptoms are closely linked and can mutually reinforce each other, which aligns with our findings on the negative impact of dysmenorrhea on mental health. There are several possible reasons why women with dysmenorrhea can experience anxiety. First, the pain may be difficult to manage; women with dysmenorrhea may feel unable to predict when the pain will appear or how intense it will be, leading to uncertainty and anxiety. Painful menstruation can prevent women from performing daily activities, cause problems at work or school, and produce feelings of helplessness and anxiety.

Gagua et al. (2013) state that menstruation is still considered taboo in some cultures and can be associated with social prejudices. Women with dysmenorrhea may feel isolated and anxious due to this social stigma. Hormonal changes during the menstrual cycle can also affect mood and cause anxiety and other emotional symptoms, which manifest unconsciously. According to Osman and El-Houfey (2016), feelings of anxiety in women with dysmenorrhea are related to feelings of loss of control of their bodies, which we also noted in the responses of the women we interviewed.

Research, including our own, shows that women with dysmenorrhea tend to have increased emotional reactivity during their menstrual cycle. One possible explanation for this phenomenon is that painful menstruation can trigger emotional stress, leading to increased emotional reactivity. Another explanation may be that women with dysmenorrhea may have disturbed sleep and feelings of exhaustion during their menstrual cycle, which can affect their emotional stability (Çinar et al., 2021).

Body image can also be affected during menstruation. One of the main factors is the change in body weight and water content during menstruation. Women can gain weight and feel bloated, leading to a negative body image. Another factor may be pain or discomfort associated with menstruation (Tang et al., 2003). Fernández-Martínez et al. (2020) point out that young women wear different clothing styles when menstruating due to these feelings. Focusing on how these manifestations depend on body image, self-concept, and self-evaluation outside menstruation would be interesting. Our research suggests that a negative body image during menstruation was more impactful on informants where body image was already generally bad.

Understanding the experiences and impacts of dysmenorrhea is a challenging topic. The main limitations of the work are the scope of contexts that can affect the informant and influence her experiences and coping with dysmenorrhea, which cannot be sufficiently deeply grasped within only 18 informants. Given the specificity of the topic, a combination of more analytical approaches was chosen. Emphasis was placed on the subjective testimonies of informants and their perception of the impacts of dysmenorrhea. However, to fulfill the goal of capturing the full breadth of possible consequences for the informants, a semi-structured interview and interpretation

in the form of thematic analysis were chosen as more appropriate. Second, the use of self-assessment methods may be influenced by subjective biases. It would be useful to include more objective evaluation methods, such as clinical interviews or biological measurements. A potential limitation could also be the age restriction, as XY points out that age influences the perception of chronic pain (Šupínová et al., 2023).

Our findings indicate several areas that should be further explored in future research. For example, it would be useful to examine the specific psychological mechanisms that mediate the impact of dysmenorrhea on women's mental health. Additionally, it would be beneficial to investigate how various interventions, such as psychotherapeutic approaches or lifestyle changes, can mitigate the psychological effects of dysmenorrhea. Research should also focus on the long-term consequences of dysmenorrhea and how it affects the life trajectories of women in different stages of their lives. We would recommend a deeper examination of the individual psychological impacts of dysmenorrhea and the social and emotional context in which symptoms worsen or improve. It would also be valuable to explore the experience with dysmenorrhea narratively, where it would be possible to focus on the development of its experience and the development of both its broader impacts and coping strategies.

Menstrual pain is often more intense and emotionally challenging than regular pain due to hormonal changes that increase pain sensitivity and worsen psychological conditions such as anxiety and depression (Rogers et al., 2023). Hormones like estrogen and progesterone modulate pain perception in various ways throughout the menstrual cycle, leading to a specific experience of menstrual pain (Teepker et al., 2010).

Conclusion

Our results showed that women with dysmenorrhea may be more prone to negative body image, anxiety, and depression. These psychological aspects can affect pain intensity and impair the quality of life during menstruation. It is important to remember that depressive and anxious symptoms can be due to the direct impact of dysmenorrhea and its consequences – for example, they can cause social isolation, and lower self-esteem, leading to a deterioration in overall quality of life. Dysmenorrhea can thus lead to longer-term impacts on women's lives, where a possible reduction in self-efficacy and deterioration of body image – according to available knowledge – can further worsen the experience of painful menstruation. It is therefore important to examine more deeply how dysmenorrhea affects women – not only on a physical but also on a psychological level – and to identify the social context and expectations that deepen these psychological consequences.

It is important to note that research into the psychological aspects of painful menstruation is still in its early stages and requires further studies focused more on specific psychological factors and their impact on painful menstruation. Given that painful menstruation affects a significant proportion of the female population, it is important to continue expanding our knowledge in this area to better understand the psychological aspects of this disorder and provide improved support for women suffering from it.

The findings support and expand existing theories by providing qualitative evidence on how dysmenorrhea affects the emotional and psychological states of women. The research contributes to a deeper understanding of the psychological burden of dysmenorrhea, which aligns with previous studies

linking menstrual pain with increased anxiety, depression, and negative self-concept. It also emphasizes the importance of addressing both the physical and psychological aspects of menstrual pain to improve overall well-being.

Ethical aspects and conflict of interest

The authors have no conflict of interest to declare.

References

- Bahrami A, Sadeghnia H, Avan A, Mirmousavi SJ, Moslem A, Eslami S, et al. (2017). Neuropsychological function in relation to dysmenorrhea in adolescents. *Eur J Obstet Gynecol Reprod Biol* 215: 224–229. DOI: 10.1016/j.ejogrb.2017.06.030.
- Bajalan Z, Alimoradi Z, Moafi Z (2019a). Nutrition as a potential factor of primary dysmenorrhea: a systematic review of observational studies. *Gynecol Obstet Invest* 84(3): 209–224. DOI: 10.1159/000495408.
- Bajalan Z, Moafi F, MoradiBaglooei M, Alimoradi Z (2019b). Mental health and primary dysmenorrhea: a systematic review. *J Psychosom Obstet Gynecol* 40(3): 185–194. DOI: 10.1080/0167482X.2018.1470619.
- Bellis EK, Li AD, Jayasinghe YL, Girling JE, Grover SR, Peate M, Marino JL (2020). Exploring the unmet needs of parents of adolescent girls with heavy menstrual bleeding and dysmenorrhea: a qualitative study. *J Pediatr Adolesc Gynecol* 33(3): 271–277. DOI: 10.1016/j.jpog.2019.12.007.
- Bloom LJ, Shelton JL, Michaels AC (1978). Dysmenorrhea and personality. *J Pers Assess* 42(3): 272–276. DOI: 10.1207/s15327752jpa4203_8.
- Chen CX, Draucker CB, Carpenter JS (2018). What women say about their dysmenorrhea: A qualitative thematic analysis. *BMC Womens Health* 18(1): 47. DOI: 10.1186/s12905-018-0538-8.
- Çinar GN, Akbayrak T, Gürşen C, Baran E, Üzelpasacı E, Nakip G, et al. (2021). Factors related to primary dysmenorrhea in Turkish women: a multiple multinomial logistic regression analysis. *Reprod Sci* 28(2): 381–392. DOI: 10.1007/s43032-020-00289-1.
- Crisson JE, Keefe FJ (1988). The relationship of locus of control to pain coping strategies and psychological distress in chronic pain patients. *Pain* 35(2): 147–154. DOI: 10.1016/0304-3959(88)90222-9.
- Eryilmaz G, Ozdemir F, Pasinlioglu T (2010). Dysmenorrhea prevalence among adolescents in eastern Turkey: its effects on school performance and relationships with family and friends. *J Pediatr Adolesc Gynecol* 23(5): 265–272. DOI: 10.1016/0304-3959(88)90222-9.
- Fernández-Martínez E, Abreu-Sánchez A, Pérez-Corrales J, Ruiz-Castillo J, Velarde-García JF, Palacios-Ceña D (2020). Living with pain and looking for a safe environment: A qualitative study among nursing students with dysmenorrhea. *Int J Environ Res Public Health* 17(18): 6670. DOI: 10.3390/ijerph17186670.
- Gagua T, Tkeshelashvili B, Gagua D, McHedlishvili N (2013). Assessment of anxiety and depression in adolescents with primary dysmenorrhea: a case-control study. *J Pediatr Adolesc Gynecol* 26(6): 350–354. DOI: 10.1016/j.jpog.2013.06.018.
- Gollenberg AL, Hediger ML, Mumford SL, Whitcomb BW, Hovey KM, Wactawski-Wende J, Schisterman EF (2010). Perceived stress and severity of perimenstrual symptoms: the BioCycle Study. *J Womens Health* 19(5): 959–967. DOI: 10.1089/jwh.2009.1717.
- Harlow SD, Matanoski GM (1991). The association between weight, physical activity, and stress and variation in the length of the menstrual cycle. *Am J Epidemiol* 133(1): 38–49. DOI: 10.1016/j.jpog.2010.02.009.
- Harlow SD, Park M (1996). A longitudinal of risk factors for the occurrence, duration and severity of menstrual cramps in a cohort of college women. *Br J Obstet Gynaecol* 103(11): 1134–1142. DOI: 10.1111/j.1471-0528.1996.tb09597.x.
- Hartlage SA, Brandenburg DL, Kravitz HM (2004). Premenstrual exacerbation of depressive disorders in a community-based sample in the United States. *Psychosom Med* 66(5): 698–706. DOI: 10.1097/01.psy.0000138131.92408.b9.
- Iacovides S, Avidon I, Baker FC (2015). What we know about primary dysmenorrhea today: a critical review. *Hum Reprod Update* 21(6): 762–778. DOI: 10.1093/humupd/dmv039.
- Iacovides S, Avidon I, Bentley A, Baker FC (2014). Reduced quality of life when experiencing menstrual pain in women with primary dysmenorrhea. *Acta Obstet Gynecol Scand* 93(2): 213–217. DOI: 10.1111/aogs.12287.
- Ibrahim NK, AlGhamdi MS, Al-Shaibani AN, AlAmri FA, Alharbi HA, Al-Jadani AK, Alfaidi RA (2015). Dysmenorrhea among female medical students in King Abdulaziz University: Prevalence, Predictors and outcome. *Pak J Med Sci* 31(6): 1312–1317. DOI: 10.12669/pjms.316.8752.
- Jung HM, Kim YS (2004). Factors affecting dysmenorrhea among adolescents. *Korean J Child Health Nurse* 10(2): 196–204.
- Kaplan JR, Manuck SB (2004). Ovarian dysfunction, stress, and disease: a primate continuum. *ILAR J* 45(2): 89–115. DOI: 10.1093/ilar.45.2.89.
- Kolář P, et al. (2010). Rehabilitace v klinické praxi [Rehabilitation in clinical practice]. Prague: Galén, 713 p.
- Manchikanti L, Fellows B, Singh V (2002). Understanding psychological aspects of chronic pain in interventional pain management. *Pain Physician* 5(1): 57–82.
- Mohammadipour M, Ashrafifard S, Mohammadipour S (2023). Relationship Between Metacognitive Beliefs and Body Image Concerns in Primary Dysmenorrhea Intensity: The Mediating Role of Pain Self-Efficacy in Iranian Students. *Iran J Psychiatry Behav Sci* 17(3): e131474. DOI: 10.5812/ijpbs-131474.
- Mou L, Lei W, Chen J, Zhang R, Liu K, Liang X (2019). Mediating effect of interpersonal relations on negative emotions and dysmenorrhea in female adolescents. *Gen Psychiatr* 32(1): e100008. DOI: 10.1136/gpsych-2018-100008.
- Naghizadeh S (2019). Comparison of the quality of life, self-efficacy, and depression in female students with and without primary dysmenorrhea in Tabriz, 2018. *Nurs Midwifery J* 17(4): 321–331.
- Nazarpour S, Khazai K (2013). Correlation between body image and coping styles with severity of primary dysmenorrhea. *Journal of Fundamentals of Mental Health* 14(56): 55–344. DOI: 10.22038/jfmh.2013.893.
- Osman HA, El-Houfey A (2016). Prevalence of dysmenorrhea and its impact on quality of life among nursing students at Assuit University, Egypt. *Int J Nurs Didact* 6(2): 23–29.
- Pakpour AH, Kazemi F, Alimoradi Z, Griffiths MD (2020). Depression, anxiety, stress, and dysmenorrhea: a protocol for a systematic review. *Syst Rev* 9(1): 65. DOI: 10.1186/s13643-020-01319-4.
- Pinkerton JV, Guico-Pabia CJ, Taylor HS (2010). Menstrual cycle-related exacerbation of disease. *Am J Obstet Gynecol* 202(3): 221–231. DOI: 10.1016/j.ajog.2009.07.061.
- Riva P, Wirth JH, Williams KD (2011). The consequences of pain: The social and physical pain overlap on psychological responses. *Eur J Soc Psychol* 41(6): 681–687. DOI: 10.1002/EJSP.837.
- Rogers SK, Ahamadeen N, Chen CX, Mosher CE, Stewart JC, Rand KL (2023). Dysmenorrhea and psychological distress: a meta-analysis. *Arch Womens Ment Health* 26(6): 719–735. DOI: 10.1007/s00737-023-01365-6.
- Romans S, Clarkson R, Einstein G, Petrovic M, Stewart D (2012). Mood and the menstrual cycle: a review of prospective data studies. *Gend Med* 9(5): 361–384. DOI: 10.1016/j.genm.2012.07.003.
- Roztočil A, et al. (2011). Moderní gynekologie [Modern gynecology]. Prague: Grada, 800 p.
- Sigmon ST, Dorhofer DM, Rohan KJ, Boulard NE (2000). The impact of anxiety sensitivity, bodily expectations, and cultural beliefs on menstrual symptom reporting: a test of the menstrual reactivity hypothesis. *J Anxiety Disord* 14(6): 615–633. DOI: 10.1016/S0887-6185(00)00054-2.

-
35. Smith JA, Flowers P, Larkin M (2009). *Interpretative phenomenological analysis: Theory, method and research*. London: SAGE Publications Ltd.
 36. Stankova K (2022). *Psychological problems of women suffering from dysmenorrhea*. Master's thesis. Olomouc: Palacký University Olomouc.
 37. Starke T (1974). *The relationship between dysmenorrhea and self-esteem*. Doctoral dissertation. Texas Woman's University.
 38. Šupínová M, Ivaničková D, Bartošik P (2023). Quality of life of patients with chronic lower back pain. *Kontakt* 25(1): 25–30. DOI: 10.32725/kont.2023.008.
 39. Tang CS, Yeung DY, Lee AM (2003). Psychosocial correlates of emotional responses to menarche among Chinese adolescent girls. *J Adolesc Health* 33(3): 193–201. DOI: 10.1016/s1054-139x(03)00049-1.
 40. Teepker M, Peters M, Vedder H, Schepelmann K, Lautenbacher S (2010). Menstrual variation in experimental pain: correlation with gonadal hormones. *Neuropsychobiology* 61(3): 131–140. DOI: 10.1159/000279302.
 41. Ullah A, Fayyaz K, Javed U, Usman M, Malik R, Arif N, Kaleem A (2021). Prevalence of dysmenorrhea and determinants of pain intensity among university-age women. *Pain Med* 22(12): 2851–2862. DOI: 10.1093/pm/pnab273.
 42. Ussher JM (2024). *The psychology of the female body*. Taylor & Francis, 188 p. DOI: 10.4324/9781003426790.
 43. Wang L, Wang X, Wang W, Chen C, Ronnennberg AG, Guang W, et al. (2004). Stress and dysmenorrhoea: a population based prospective study. *Occup Environ Med* 61(12): 1021–1026. DOI: 10.1136/OEM.2003.012302.