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RESEARCH ARTICLE

Pain management and coping strategies for primary dysmenorrhea: A qualitative study among female nursing students

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Abstract

Aim: Primary dysmenorrhea is a problem that affects both young and adult women, with a significant impact on their daily lives. This pain is primarily managed through the consumption of non-steroidal anti-inflammatories and non-pharmacological approaches such as exercise, acupressure and heat. The present study aimed to describe how Spanish university students manage dysmenorrhea.

Design: Qualitative case study.

Methods: Nursing students ($N = 33$) from the region of Andalusia (Spain) participated in focus groups. A purposive sampling method was used, and the data were collected through videoconferencing and subsequently analysed thematically. The guidelines for conducting qualitative studies established by the consolidated criteria for reporting qualitative research (COREQ) and the standards for reporting qualitative research (SRQR) were followed.

Results: Four principal themes were identified: (a) Strategies for pain management; (b) using painkillers; (c) choosing the ideal treatment; (d) non-pharmacological interventions.

Conclusions: The nursing students experienced difficulties in managing primary dysmenorrhea, they self-medicated, expressed reluctance to seek professional medical advice, used non-pharmacological strategies and seeked advice from other women within their family/social circle.

KEYWORDS

dysmenorrhea, nursing students, pelvic pain, qualitative research, self-care

1 | INTRODUCTION

Primary dysmenorrhea (PD) is chronic and recurrent menstrual pain not associated with an organic pelvic pathology (Koninckx et al., 2017) manifested by severe cramping or spasms in the pelvic and lumbar region, which may be accompanied by a variety of symptoms (Iacovides et al., 2015) and have a negative impact on the perceived quality of life (Fernández-Martínez et al., 2019).

The principal treatment is the prescription of non-steroidal anti-inflammatories (NSAIDs), although in Spain these drugs are available without a prescription. When these prove to be ineffective, oral hormonal contraceptives are used (OCPs) (Abreu-Sánchez et al., 2020; Chen et al., 2018; Iacovides et al., 2015; Lindh et al., 2012; Marjoribanks et al., 2015; Spanish Society of Gynecology & Obstetrics, 2014, 2021). Prior studies have shown (Abreu-Sánchez, Parra-Fernández, Onieva-Zafra, Ramos-Pichardo, et al., 2020; Spanish Society of Gynecology and Obstetrics, 2014) that early and differential diagnosis of PD in relation to other pathologies can prevent the worsening of the condition and can improve women's health. However, seeking medical advice for this condition is rare and self-medication is a common practice (Chen et al., 2018; Ortiz, 2010; Parra-Fernández et al., 2020). The most common drug of choice for self-medication to relieve pain is generally NSAIDs (Ortiz, 2010; Parra-Fernández et al., 2020); however, the dosages used are often subtherapeutic and, therefore, not only are they ineffective, but also this can pose a health risk to women (Bjarnason, 2013; Gama & Secoli, 2017; Hersh et al., 2007; Parra-Fernández et al., 2020). Nonetheless, the efficacy of non-pharmacological methods remains a subject of study and their effectiveness and safety should continue to be explored (Armour, Parry, et al., 2019; Matthewman et al., 2018; McGovern & Cheung, 2018).

2 | BACKGROUND

Among university students, PD can have a significant impact on their quality of life, resulting in absenteeism, presenteeism and reduced concentration, with a negative impact on academic performance (Fernández-Martinez et al., 2019; Fernández-Martínez, Abreu-Sánchez, et al., 2020). In the case of healthcare students, whose training is highly practical, such as in the field of nursing, the impact on learning is of greater interest since it could affect the care provided, furthermore, the management of their menstrual problem could be influenced by their health knowledge (Abreu-Sánchez et al., 2020; Parra-Fernández et al., 2020). It is necessary to conduct further studies into how university students manage their pain. Qualitative studies have been conducted in health sciences to further understand the experience of women suffering from dysmenorrhea (Chen et al., 2006, 2018; Fernández-Martínez et al., 2020). Chen et al. (2018) found that American women did not tend to seek professional medical care for menstrual pain, normalized the problem and preferred to self-medicate, dubious of available treatment and of the ability of professionals to provide real help. In China, Wong et al. (2016) explored the self-care strategies adopted by female adolescents in Taiwan through the use of focus groups. These strategies included reducing physical activity, dietary changes, complementary therapies and caring for accompanying symptoms and emotions.

The question that guided our study was: How do Spanish nursing students manage PD? The aim was to explore and describe how Spanish university students manage PD pain and the strategies they use.

3 | METHODS

3.1 | Design

A qualitative case study was conducted using focus groups (FGs) from January–1 to June–1–2020. Qualitative research is useful in determining the beliefs, values and motivations that underlie individual health decisions (Creswell & Poth, 2018). The study of cases helps to describe and analyse a shared experience such as pain management (Fàbregues & Fetters, 2019). Also, the case study is useful for describing a phenomenon or intervention and the real-life context in which it took place (Baxter & Jack, 2008). Focus groups were used as a method to explore phenomena which are complex or difficult to address by other means (Carpenter & Suto, 2008). A principal advantage of focus groups is that they yield a large amount of information over a relatively short period of time. They are also effective for accessing a broad range of views on a specific topic. (Mack et al., 2005).

3.2 | Research team

Seven researchers (four women and three men) participated in this study, three of whom had experience in qualitative study designs (DPC, JPC, JFVG). All had PhDs in health sciences and were not involved in clinical activity. Prior to the study, the positioning of the researchers was established regarding the theoretical framework, the researchers' beliefs, their prior experience, and their motivation for the research (Tong et al., 2007). Researchers based their approach on a constructivist paradigm (Creswell & Poth, 2018). This paradigm was based on the assumption that human beings construct their own social reality, and that knowledge is built through increasingly nuanced reconstructions of individual or group experiences (Baxter & Jack, 2008). In constructivism, individuals develop meanings of their experiences. These meanings are varied and multiple, leading the researcher to seek a complexity of perspectives. The goal of the research is to rely on the participants' views of the situation (Creswell & Poth, 2018). Our main belief was that nursing students only use pharmacological strategies in pain control due to the knowledge acquired in the university.

3.3 | Participants and sample

Participants were nursing students from a public university in the Andalusia region of Spain. Participants were recruited based on their capacity to provide information and respond to the research questions.

An intentional, non-probabilistic sample was used. The participants were nursing students who: (a) Experienced menstrual pain of undetermined aetiology (Chen et al., 2018; Ramos-Pichardo et al., 2020); (b) suffered from pain at least once in the last 6 months (Burnett & Lemyre, 2017; Fernández-Martínez et al., 2021) and during at least 3 periods per year (Gómez-Escalonilla Lorenzo et al., 2010); (c) experienced moderate-severe pain in the last three cycles using the visual analogue scale (VAS, equal or superior to 4 out of 10) (Onieva-Zafra et al., 2020; Schoep et al., 2019); (d) had otherwise normal menstrual characteristics (periods every 24–38 days, on a regular basis, with bleeding that lasts 4.5 to 8 days, and 5- to 80-ml blood loss per cycle) (Abreu-Sánchez et al., 2020; Mihm et al., 2011). The exclusion criteria were students diagnosed with other gynaecological pathologies or pathologies associated with pain as well as those suffering from secondary dysmenorrhea. This latter criterion was based on *The Primary Dysmenorrhea Consensus Guideline of the Society of Obstetricians and Gynaecologists of Canada and the Committee Opinion on Adolescent Health Care Dysmenorrhea and Endometriosis in the Adolescent* developed by the American College of Obstetricians and Gynecologists (Burnett & Lemyre, 2017; Geri et al., 2018; Yang et al., 2017).

The recruitment process consisted of three initial contacts with potential participants until confirmation of their voluntary participation in the study. See Table 1.

3.4 | Data collection

Focus groups were used to collect data from 33 nursing students. Five FGs were formed with 6 and 9 participants each. There were no dropouts. Recruitment ended when the information obtained from the FG that became repetitive at which point no new information emerged from data analysis (Carpenter & Suto, 2008). This was achieved in FG number 5, reaching a sample size of 33 students. Meaningful discussions can be difficult to sustain in FGs with fewer than 4 members whilst groups larger than 10 can prove difficult to manage (Whalley Hammell & Carpenter, 2004). The total duration of the FG was 522 min, with each session lasting between 50–80 min.

The FGs were conducted by videoconference through the ZOOM platform (https://zoom.us/) and were both audio and video recorded (Archibald et al., 2019). At the start of each FG, the participants identified themselves upon entering the platform and, therefore, could be identified whilst they participated. The FGs were directed by a researcher who moderated the session and was accompanied by another researcher who acted as an observer, supporting the moderator and taking field notes during the FG. The moderator posed open questions to the participants to inquire about the pain management strategies of the group and individuals (Bloor et al., 2001).

The FGs were conducted in Spanish. A question guide was used (Burbeck & Willig, 2014), which was focused enough in order to gather information on the area of study, although it was open enough to stimulate discussion and interaction among the participants (Moser & Korstjens, 2018). The questions followed a guide focused on the area of study. See Table 2.

3.5 | Data analysis

A thematic analysis (Braun & Clarke, 2006) of the data was conducted by three researchers with experience in qualitative studies which included a descriptive analysis of the transcripts of the FGs and the field notes gathered by the researchers (Carpenter & Suto, 2008). The coding process is described in Table 3.

Initially, the researchers analysed each FG separately and later pooled their findings. Any differences in interpretation were resolved by consensus. No qualitative software was used for the data analysis.

3.6 | Quality criteria

The guidelines for conducting qualitative studies established by the Consolidated Criteria for Reporting Qualitative Research (COREQ) (Tong et al., 2007) and the Standards for Reporting Qualitative Research (SRQR) (O'Brien et al., 2014) were followed. For trustworthiness, researcher triangulation and participant validation were used to control the credibility of the data; an audit of the FG by an external researcher, reviewing the quality of data collection and analysis process; and return of the transcripts to participants for verification.

Transferability was established by providing details of the researchers, participants, sampling strategies, data collection and analysis procedures. Finally, confirmability was carried out by applying researcher reflexivity (Creswell & Poth, 2018).

TABLE 1 Initial contacts made during participant recruitment

Contact	Description
Initial	The teachers put the researchers in contact with potential participants.
Intermediate	In-person meeting to explain students details about the study.
Final	Students confirmed their willingness to participate in the study and provided informed consent.

TABLE 2 Semi-structured focus group question guide

Research Area	Questions
Strategies for pain management	How do you deal with menstrual pain? In what specific situations do you need painkillers to control the pain? What type of painkillers do you use to control the pain? At what step on the "pain ladder" do you use painkillers?
Use of painkillers	To what extent do you need painkillers to control the pain? How do you use painkillers? On what basis do you choose them? Is there something that conditions your use of painkillers? What? Why?
Choosing the ideal treatment	When and why do you seek professional medical care? In what circumstances do you seek help to manage the pain? To what extent does seeing a doctor help with dysmenorrhea? Have you tried other, non-prescription drugs to relieve the pain? In what circumstances do you use these drugs?
Non-pharmacological interventions	What strategies apart from medication do you use to control the pain? In what circumstances do you use these strategies? Are these habitual or only occasional strategies? How did you learn of them?

TABLE 3 Coding of the qualitative data

Codification process
1. Identification of words, phrases or metaphors in the text.
2. Reduction of the data to units of meaning (codes).
3. Grouping of units of meaning into groups with common meaning.
4. Identification of emerging themes.

4 | RESULTS

A total of 33 nursing students participated in the study, with a mean age of 22.72 (*SD* 3,46) years. Of these, 87.9% lived in an urban environment, whereas 12.1% lived in a rural environment. Regarding the intake of medication, 84.8% reported taking some type of analgesic for menstrual pain, 81.8% used NSAIDs and 21.2% used OCPs.

Four principal themes were identified: (a) Pain management strategies; (b) using painkillers; (c) choosing the ideal treatment; and (d) non-pharmacological intervention.

4.1 | Theme 1. Pain management strategies

The students described that the consumption of medication was their usual strategy for pain management. The most frequently used drugs were contraceptives, analgesics and NSAIDs. The use of NSAIDs was generally reserved for days or moments when the pain was most intense: *"normally what I do is just take a pill. Metamizole works for me; there are times when the pain makes it difficult to sleep and Metamizole is like an anaesthetic."* (Participant 8).

Some of the participants anticipated the pain, taking analgesics pre-emptively, whereas others delayed taking analgesics until the pain appeared. The students who anticipated the pain reported how, in doing so, they managed to prevent the pain from increasing and, therefore, had more control over the pain: *"I don't wait until I feel the pain but take it when I begin to feel discomfort and see that it's going to start hurting a lot in no time."* (Participant 2).

The participants who delayed taking the medication reported that they generally "put up with the pain" because they wanted to avoid the possible side effects of the medication: "*I try to put up with it because I don't like taking pills, but in the end, I have to take 1g of Naproxen, and then it goes away.*" (Participant 30).

In other cases, despite taking medication, the pain often persists, and they must simply "put up with it". This phenomenon of withstanding the pain is described as a form of resignation in the face of pain that is occasionally inevitable: "*you get used to it; you have no choice, just take pills and put up with it.*" (Participant 16).

4.2 | Theme 2. Using painkillers

The participants spoke of their need for painkillers in order to continue their daily activities, even when this was not effective. They even mentioned at times increasing their dosage or resorting to intramuscular analgesics. In addition, these participants spoke of their fears of the side effects of this type of consumption.

Thus, painkillers were used with their daily activities in mind, either at work, study or recreation. The ability to continue with these activities was dependent on the efficacy of the medication for reducing pain and its duration; often resorting to taking an additional dose of medication to control the pain. Thus, the participants were forced to carry medication with them when doing any activities outside the home: *"you depend on an analgesic and it could wear off at any time and you don't know what to do and you have to stop what you're doing, or it will be really bad because you're in pain. It can happen at home or in the street, doing sports. It takes over my day when it happens. Then I have to change my plans."* (Participant 2).

The participants related how, especially during the first days of menstruation, the medication is not always effective for reducing the pain, leading them to increase the dose. In some cases, participants have resorted to intramuscular analgesics: "*the first and second*

day. I have taken up to two pills in one hour because the pain wouldn't stop, and I couldn't go on like that. I've gone to the health clinic to have an injection because the pain wouldn't stop." (Participant 23).

Participants who consume these drugs are concerned about tolerance and dependence. These fears are associated with the decreased efficacy of analgesics: *"by constantly taking the same pill it may lose its effectiveness. I'll build up a tolerance and it won't work."* (Participant 6); and having to depend on these drugs to control the pain: "*I'm afraid of depending on anti-inflammatories my whole life."* (Participant 5). Some women spoke of their fear of losing control of their bodies, regarding drugs as unhealthy and harmful for their body: *"I don't want to abuse my body because of this, and there are a lot of side effects (…) I don't think it's good for my body, and so I don't want to take it."* (Participant 2).

Finally, the participants who sought professional medical treatment (primary care and gynaecologists) spoke of their negative experiences related to the management of dysmenorrhea. From their perspective, satisfaction with treatment can vary from one doctor to another, and, therefore, requires seeking out and consulting various health professionals. The participants spoke of how medical professionals focused exclusively on prescribing painkillers without offering any guidance towards other possible solutions: *"every time I go, they give me a different pill, but isn't there another option? And the only answer I get is that it will pass over time or when I have kids. So, what do I do? It's frustrating because either I'm sick of the pills or I don't know what to do."* (Participant 28).

4.3 | Theme 3. Choosing an ideal treatment

The majority of participants concurred that in order to control the pain, this involves experimenting with the effects of different medications, sometimes prescribed by a doctor and at other times self-medicating: *"the professional can tell you that for the pain you have to do this and that, but it's a question of trying things."* (Participant 24).

The process of choosing a pain management strategy is through "trial and error," by trying different strategies until the optimal solution is found by each participant: *"I think it's something we have to learn to manage ourselves, no matter what they tell you or what advice they give you. It's a process of trial and error until you find the formula that works best for you."* (Participant 11).

Some participants associated pain with something inherent to menstruation and, therefore, failed to consult a healthcare professional. They explained how they tend to downplay the importance of dysmenorrhea or even normalize the pain: *"I've been treating the pain myself. I don't see a doctor because it's normal for it to hurt"* (Participant 11). Another reason for not seeking professional care is the fear that the healthcare professionals will downplay the severity of the pain: "*I think they won't consider it important, if they ask me about my cycle, my pain, if I'm not in extreme pain they'll ask me why I want an analysis or cytology test."* (Participant 5).

Finally, when choosing a painkiller, the women tend to follow the advice and recommendations of other women in their social/family circle (mothers, friends, etc.): *"I took it because of that, because my mother told me 'take a Metamizole and that will take it away'. And I took it. And the truth is that since then I've been taking it."* (Participant 8).

4.4 | Theme 4. Non-pharmacological interventions

All of the participants described the use of non-pharmacological strategies to control or reduce the pain since painkillers were not effective enough. Some spoke of the simultaneous use of pharmaceuticals and the application of non-pharmaceutical strategies to better manage the pain: *"I take Metamizole, Dexketoprofen or one of those drugs. I take it, lie down in bed and I relax"* (Participant 11). Some participants noted that when they begin to feel pain, they are able to effectively combine both strategies: "*I take an Ibuprofen as soon as it starts. I lie in bed or on the sofa and massage my stomach clockwise"* (Participant 9). However, for other participants, the use of both strategies is progressive, depending on the pain and its evolution: "*If it starts to hurt more, I go for a walk to take my mind off it and it slowly goes away. And if I can't do anything, then I take a Metamizole, Dexketoprofen or some other painkiller.* (Participant 11).

Non-pharmaceutical strategies for pain management include those that favour relaxation (rest, heat, massage, music, etc.), adopting antalgic positions and distraction techniques. Common techniques to favour relaxation and consequently reduce the pain include physical rest, various forms of heat application such as a hot shower, a thermal seed bag, electric blankets or even drinking hot herbal teas, such as chamomile tea: *"what I do is lie or sit down and curl up and if it really hurts I take a hot shower and the pain goes away."* (Participant 15); *"An anti-inflammatory and a thermal seed bag that I heat up in the microwave; that helps to alleviate the pain, putting the heat where it hurts."* (Participant 30); *"sometimes I drink chamomile tea because I also have stomach pain and something hot helps. Before it starts to hurt even more, when I didn't use contraceptives, I also used an electric blanket."* (Participant 33). Other methods that are combined with heat include placing the hands over the area or massaging the painful area, breathing exercises and/or listening to relaxing music: "*When I feel greater pain I try to lie down; it relaxes me when I place my hands where it hurts and I close my eyes, listen to music and breathe, that also helps."* (Participant 27).

Adopting antalgic positions is a common strategy among all participants. Thus, the participants learn positions and postures to mitigate their menstrual pain: *"when you feel discomfort or pain you move around to find the position where it hurts the least."* (Participant 3); "*for me, lying down with my legs up alleviates the pain."* (Participant 31). A number of students agreed that assuming the foetal position helped with pain management: *"the pain, at least in my case, makes me want to be in a foetal position all the time."* (Participant 2). As with pharmacological treatment, the choice of an effective posture for pain management is a process of trial and error, trying to find the position that is most comfortable and alleviates the pain: *"I've been experimenting on my own, I position myself one way and then another. And then I know the best position to take to alleviate the pain."* (Participant 8).

On other occasions, participants try to distract themselves with different activities to avoid focusing on the pain: *"… when I'm doing something I tend to forget, but the moment I'm not busy it hurts more."* (Participant 3). A common way for participants to distract themselves is to spend time with friends and family: *"the days I have my period I meet with family or friends, because it's a distraction to be with other people and it helps me forget my period and I hardly feel the pain."* (Participant 4).

5 | DISCUSSION

The results of our study show that university students suffering from PD report using different strategies to cope with menstrual pain. Some participants believe that analgesics are essential, even before the onset of pain. In contrast, others prefer to put up with the pain and avoid consuming drugs for fear of possible side effects and the development of any kind of tolerance or dependence. The participants related how they occasionally avoided seeking professional medical advice because their pain may be downplayed. The choice of a coping strategy is usually based on advice from someone in their close circle of friends or family or is based on trial and error until the most effective pharmacological and/or non-pharmacological strategies are found.

Among the strategies used to overcome the pain is the pre-emptive consumption of medication, periodic consumption during menstruation, "putting up with the pain" and avoiding or delaying the intake of medication. Previous studies (Iacovides et al., 2015; Ortiz, 2010; Parra-Fernández et al., 2020) have found that the pre-emptive intake of analgesics is a common practice during menstruation. In the case of the participants in this study, this pre-emptive consumption may be explained by the student's application of knowledge acquired through their studies on pain management, by avoiding an increasing pain intensity and therefore facilitating easier management.

The perception of the ineffectiveness of pharmacological treatment and the need to increase dosages has been identified in previous studies. Oladosu et al. (2018) found that 18% of women suffering from NSAID resistant menstrual pain had to increase their dosage to manage their pain.

One unique finding of our study is the worry or fear expressed by participants regarding the consumption of painkillers, leading to delayed use of the same. Although self-medication with NSAIDs can have potential side effects, such as the aggravation of gastrointestinal disorders, in young women without any associated pathologies this risk is considered low (Bjarnason, 2013; Hersh et al., 2007). Our findings also show that participants expressed fear of dependency or tolerance of analgesics. The authors are unaware of whether these fears or worries originate from negative personal experiences or are derived from myths or false beliefs (Rastogi et al., 2019; Yagnik, 2019). This is important given that the students are future healthcare professionals and will be responsible for public health education. In conjunction with the avoidance of analgesics, women expressed the notion of simply "putting up with the pain". The authors believe that this strategy may be linked to socio-cultural factors associated with menstruation (Tan et al., 2017).

Self-medication, and the choice of personal pain management strategies, is based on personal experimentation and the advice provided by other women within the social/family circle. Other studies among Spanish and German university women also point to self-management practices as those that are most commonly used in women with this pain who fail to seek professional care to avoid having their pain downplayed or are dissatisfied with the therapeutic options provided by healthcare professionals, forcing them to seek alternatives (Armour et al., 2019; Blödt et al., 2016; Parra-Fernández et al., 2020). Additionally, seeking advice from women within the social/family circle is explained by the fact that having an immediate family member with PD is a risk factor for suffering from PD (Gebeyehu et al., 2017). Thus, women with PD often seek advice from their mothers.

Some participants of the present study self-medicate guided by the advice of women in their family/social circle. One could expect that, given their healthcare studies, they would have more specialized knowledge than the general public about health, illness and the risks of self-medication (Bjarnason, 2013; Hersh et al., 2007; Parra-Fernández et al., 2020). Also of note was the reluctance to seek professional medical care in the case of pelvic pain which can delay the diagnosis of other health problems and worsen their prognosis when detected (Osayande & Mehulic, 2014). The Spanish Society of Gynaecology and Obstetrics (*Sociedad Española de Ginecología y Obstetricia*) (2014, 2021) recommends women suffering from pelvic pain associated with menstruation to consult a medical professional. Arakawa et al. (2018) describe how self-care in pain management is more expensive and less effective than consulting a healthcare professional (Parra-Fernández et al., 2020).

The study found that the adoption of antalgic positions is common to all participants. Previous studies (Parra-Fernández et al., 2020) indicated that the use of antalgic postures and physical activity, such as walking, help to alleviate menstrual pain. With regard to the use of distractions, such as watching television or listening to music, other authors have found this to be a habitual practice in self-care for dysmenorrhea (Parra-Fernández et al., 2020). Other strategies have proven to be effective in alleviating menstrual pain, such as the local application of heat (Matthewman et al., 2018), dietary changes (Chen et al., 2006; Wong et al., 2016) and acupressure (Fernández-Martínez, Abreu-Sánchez, et al., 2020; Matthewman et al., 2018). These last two were not mentioned by our participants. This may be because of a lack of counselling on behalf of healthcare professionals, due to their unawareness or lack of training in effective methods for controlling or alleviating pain caused by PD.

The principal strength of this research project is the study of PD among nursing students. These future healthcare professionals will have direct access to and influence the general public in the area of healthcare and the acquisition of healthy habits and the prevention of harmful behaviour (self-medication). Investigating and understanding their perspectives on pain management will help identify

the needs for training and the implementation of programs specifically addressing the subject of self-care, self-management and empowerment.

5.1 | Relevance to clinical practice

Regarding the clinical practice implications, this study identified the need for greater engagement and counselling on behalf of healthcare professionals aimed at young women suffering from PD and more specialized training in PD and pain management on behalf of healthcare professionals. It is necessary to implement menstrual education programs within the university context and to invest more resources in the training and updating the skills of healthcare professionals in the area of PD. Furthermore, it seems interesting that students of health sciences should be advised to deepen their knowledge of the side effects, tolerance and dependence on analgesic drugs.

5.2 | Limitations

Among the limitations of the study is the inability to generalize these findings to the entire nursing student population. Another limitation is that nursing students receive specific training in healthcare. It is necessary to explore the perspectives and experiences of other groups of students, which may offer a broader vision of the management of PD. Finally, a further limitation was the collection of data through videoconferencing due to the COVID-19 pandemic. Certain difficulties arose during data collection: (a) the quality of the participant's internet connection; (b) the unfamiliarity of both participants and researchers in the use of this new medium for data collection; and (c) limitations in the collection of non-verbal information, given that not all participants activated their cameras during the videoconferences.

6 | CONCLUSION

The nursing students who participated in this study experienced difficulties in managing PD, employing strategies such as self-medication, expressing reluctance to seek professional medical advice and a tendency for the use of non-pharmacological strategies, such as adopting antalgic positions and seeking advice from other women within their family/social circle.

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CONFLICT OF INTEREST

The authors declare that they have no conflict of interests.

AUTHOR CONTRIBUTIONS

EF-M, DP-C, AA-S: Study design. EF-M, AA-S, MTI-L: Data collection. JP-C, DP-C, PC-G, JFV-G: Data analyses. EF-M, JP-C, DP-C, AA-S, MTI-L, PC-G, JFV-G: Manuscript preparation.

ETHICAL APPROVAL

This study was approved by the Research Ethics Committee of the university and conducted in accordance with the principles articulated in the WMA Declaration of Helsinki (Ethical Principles for Medical Research Involving Human Subjects). All participants provided written informed consent prior to participating in this study.

DATA AVAILABILITY STATEMENT

Personal data are stored in the data protection file of the University of Huelva. This is qualitative research we could not provide transcribed files, we followed the Spanish Organic Law on Protection of Personal Data and guarantee of digital rights (2018).

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