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Original research article

PREVALENCE AND COPING STRATEGIES OF DYSMENORRHEA AMONG UNDERGRADUATE NON-MEDICAL STUDENTS

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Abstract: *Although dysmenorrhea is not a life-threatening disorder, it can have a significant negative impact on both individuals and society. Dysmenorrhea is a chronic condition that causes significant pain, cramping, and constriction in the lower abdomen. Additional symptoms like sweating, headaches, nausea, vomiting, and diarrhea frequently accompany it. Primary dysmenorrhea is another pain term with no obvious medically identifiable gynecological etiology. This study conducted a cross-sectional investigation on a sample of 377 people gathered from various women's colleges in Karachi. Version 24 of SPSS was utilized for the analysis. The results show that the participants knew about the risk factors of dysmenorrhea, but knowledge regarding dietary recommendations and physical activity was low. This study provides insight into the incidence of dysmenorrhea among undergraduate non-medical females and the coping strategies used by these students. This information will benefit medical care providers to recommend the most effective strategies according to medical literature to those not using the effective method. A program of awareness development is required to promote young females' health.*

Keywords: Dysmenorrhea, undergraduate, non-medical students, coping strategies

Introduction

Although dysmenorrhea is not a life-threatening disorder, it can have a significant negative impact on both individuals and society. Sweating, headaches, nausea, vomiting, and diarrhea are sometimes accompanied by symptoms such as dysmenorrhea, a severe, uncomfortable, constricting sensation in the lower abdomen. It may be primary pain, which lacks a definite medical gynecological basis. A common health issue among undergraduate students is pain. There are still unknowns regarding the prevalence of pain, pain management techniques, and healthcare professional understanding.(Kodama et al., 2021)

Young and middle-aged women are most commonly affected by premenstrual syndrome, a normal cyclic ailment. Physical and mental symptoms that recur frequently throughout the luteal phase of the menstrual cycle are what define it. (Schrager, 2009)

Primary dysmenorrhea typically manifests itself 6 to 12 months following menarche, when ovulatory cycles are established. Pain typically lasts 8 to 72 hours and is correlated with the start of menstrual flow. (Abubakar et al., 2020) Dysmenorrhea adversely affects daily physical activities like chores, work or school activities like absenteeism, lack of concentration, diminished involvement or production, as well as social interactions and psychological status.(Mesele et al., 2022) Early pubescence, being under the age of 20, being nulliparous, premenstrual syndrome, anxiety, smoking, one's lifestyle and personal habits, physical activity, and irregular menstruation (heavy, frequent, and prolonged) were all factors linked to dysmenorrhea. (Mishra et al., 2021)

There is a high prevalence of emotional illnesses among health professions students who require special care. They are more likely to experience depression, anxiety, and stress due to how the medical curriculum is structured.(Aziato et al., 2015) The therapy of dysmenorrhea should be improved by using customized approaches. Health workers should receive education on the condition to strengthen their mindset and capabilities for managing dysmenorrhea. (Chia et al., 2013)

Dysmenorrhoea is an important issue and merits research because it is a widespread and extremely irritating health problem, especially affecting young women.(Kartal and Akyuz, 2018) The biggest predictor of moderate/severe dysmenorrhea was skipping breakfast. It is necessary to raise awareness of the potential influences on the severity of dysmenorrheic pain. (Axon et al., 2018)

Dysmenorrhea treatment options (including those focused only on pain management) could enhance female medical students' class attendance and exam performance because there appears to be a substantial correlation between severe premenstrual symptoms and lower educational achievement. (Agley et al., 2022)

To encourage academic performance, educational institutions should ensure they have clear policies and procedures for students and professors when coping with

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pain or other illnesses. Future studies must investigate how to serve kids with chronic pain more effectively in school, including determining the exact load and creating and evaluating the success of policies and support systems.(Osonuga et al., 2018)

Numerous management techniques have been tried, including non-pharmacologic ones like exercise, warm compresses, massage, rest, and red bean pillows. A change in diet that includes foods high in omega-3 fatty acids has also been shown to lessen pain and may be helpful. Acupuncture, electrical nerve stimulation, and accuracy have been employed in several trials.(Fatima et al., 2017)

Non-steroidal anti-inflammatory drugs, notorious for having negative drug reactions, were the most frequently utilized medications. This emphasizes the significance of educating kids to only use medications when necessary and only with a prescription from licensed medical professionals. (Oral et al., 1970)

Dietary suggestions, such as consuming fewer carbohydrates and junk foods, may benefit young women by easing their symptoms. Since dysmenorrhea and severe premenstrual symptoms appear closely related, therapeutic approaches (including pain management) may help improve female medical students' class attendance and exam performance. (Shiferaw and Mamo Wubshet, 2014) The afflicted students should have constant access to health education, adequate medical care, and counseling from Bahir Dar University. A concerted effort at all levels is required to end circumcision, and additional measures that would allow women to enroll in college should be implemented. (Soe et al., 2018)

According to the best of the researcher's knowledge, there are limited studies on the topic, and the prevalence of dysmenorrhea among non-medical students is a significant gap that must be filled in the literature. This study will be useful in determining the prevalence of dysmenorrhea among female undergraduate non-medical students and in raising awareness of the common coping mechanisms employed by non-medical students, allowing medical professionals to suggest the most effective method to those not using it.

Methodology

The study design was a cross-sectional study. Data was collected from non-medical universities such as the University Of Karachi, NED University, Sindh University (Old Campus), and Sindh University Jamshoro Hyderabad. The duration of this study was 6 months after approval of the proposal. The sample size was 377 female non-medical students, calculated through the Raosoft sample size calculator. Non-probability convenient sampling method was used. Inclusion criteria would include female undergraduate non-medical students., aged 18 to 24 years if dysmenoherric female fill the strategic questionnaire and participants with dysmenorrhea who was willing to participate. In contrast, exclusion criteria include female undergraduate medical students, other medical complications with dysmenorrhea, premenstrual syndrome, and those unwilling to participate in the study.

Data was collected by obtaining consent and providing the participants with a printed questionnaire. Pilot testing was done before performing the research work. And was returned to the research. Data was analyzed by SPSS version 24. Descriptive statistics was applied to calculate the frequency and percentage.

WaLLID Score and Self-administered dysmenorrhea coping strategies questionnaires were used for data collection

Data was taken after the approval from the ethical review committee of Isra University. The participant's confidentiality will remain constant, and the information will not be disclosed to anyone. And the participant has the right to withdraw at any time they want to.

Results

Table 1 depicts the age of participants. The maximum of answer is no frequency is 265, the percentage is 67.9%, and the minimum is yes frequency is 125, and the percentage is 32.1%. Table 2 and 3 shows the location and intensity of pain.

Table 4 depicts the prevalence of coping strategies like Orthodox analgesics, Herbal treatment, exercise, water, Diet Therapy, warm compress meditations, etc.

Table 5 illustrates the result of dysmenorrhea. The total score for most answers is 5-7. Moderate dysmenorrhea frequency is 245, and the percentage is 62.8%, then the maximum 1-4 mild dysmenorrhea frequency is 93, and the percentage is 23.8%. The minimum result shows 8-12 severe dysmenorrhea frequency in 51, and the percentage is 13.1%, and the less than no dysmenorrhea frequency is 1, and the percentage is .3%

Table 1: Age of participants

Age	Frequency	Percent
18-21 years	125	32.1
22-24 years	265	67.9
Total	390	100.0

Table 2: Location of pain

Location	Frequency	Percent
None	46	11.8
1 site	162	41.5
2-3 site	161	41.3
4 sites	21	5.4
Total	390	100.0

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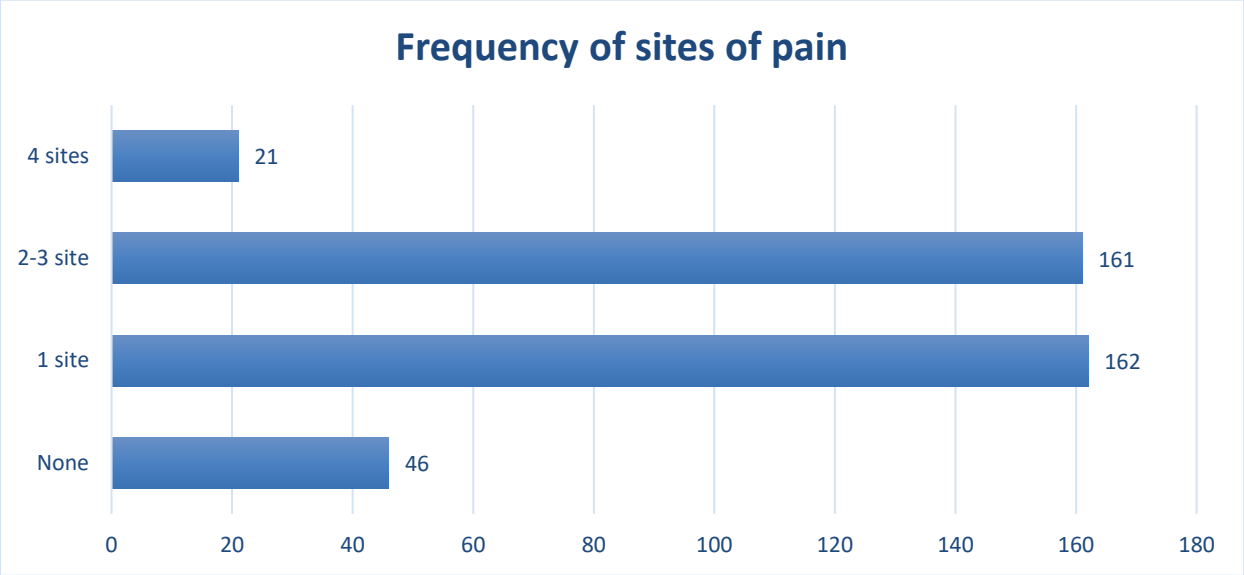

Figure 1: Number of sites involved I study population

Table 3: Intensity of pain

Intensity	Frequency	Percent
Does Not Hurt	43	11.0
Hurts A Little Bit	174	44.6
Hurts A Little More - Hurts Even More	131	33.6
Hurts A Whole - Hurts Worst	42	10.8

Table 4: Prevalence of different coping strategies:

Coping strategies	Yes	No
Orthodox analgesics	80(20.5%)	310(79.5%)
Herbal treatment	174(44.6%)	216(55.4%)
Exercise	81(20.8%)	309(79.2%)
Water	304(77.9%)	304(77.9%)
Diet Therapy	118(30.3%)	272(69.7%)
Warm compress	149(38.2%)	149(38.2%)
Meditation	84(21.5%)	306(78.5%)

Table 5: Dysmenorrhea total score

	Frequency	Percent
No dysmenorrhea	1	0.3
1-4 mild dysmenorrhea	93	23.8
5-7 moderate dysmenorrhea	245	62.8
8-12 severe dysmenorrhea	51	13.1

Discussion :

In the previous study, the same size was 210 female medical students who took medicines for pain management during dysmenorrhea. A validated questionnaire was used in the previous study.(Arunkumar et al., 2015)

The current study showed that 390 sample sizes were given from non-medical female students and non-medical students take herbal remedies and increase their water intake during dysmenorrhea and while working ability, location, intensity, days of pain, dysmenorrhea (WaLIDD) questionnaire and self-administrated questionnaire used in the current study.

The previous study showed that the participants who managed their pain through rest were 79.4%, and the age group in the previous study was 10-19 years.

In this study, 77.9% of participants managed dysmenorrhea through excessive water intake, and the age group is 18-24 years.

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Premenstrual symptoms and dysmenorrhea are frequent causes of physical and emotional suffering, particularly among female medical students. (Rafique and Al-Sheikh, 2018)While in this study, the prevalence of physical and psychological distress in dysmenorrhea and premenstrual symptoms was moderate among female non-medical students.

The results of the current study dysmenorrhea missed classes, participated in fewer social and physical activities, had trouble focusing, and had average academic performance as a result. At the same time, it is suggested that healthy, positive lifestyle behaviors should be encouraged in young females and adult females, such as repeated studies with a longer follow-up with the medical counselor because, in this study, the frequency of pain severity in dysmenorrhea was significantly higher in the group treated with herbal treatment, water, and warm compress.

Conclusion

The study concluded that 21-24 age groups were more dysmenorrheic than 18 – 20. It also concluded that the group 21-24 years of age had moderate dysmenorrhea. Some students use orthotic analgesics, herbal treatments only, and non-pharmaceutical logical treatments such as exercises, water therapy, diet therapy, etc. Students who use self-treatments or medications avoid the paramedic's staff or any awareness of the medical information.

Declarations

There is a need to inform housewives, mothers, and other female relatives about the risk factors and important care of exercise. For this purpose, we recommend that medical professionals spread the word and provide personal counseling about dysmenorrhea prevention programs. A crucial part of this prevention program is explaining the recommended coping strategy to ease the condition of dysmenorrhea in non-medical undergraduate students.

Data Availability statement
All data generated or analyzed during the study are included in the manuscript.
Ethics approval and consent to participate.
Approved by the department Concerned.
Consent for publication
Approved
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Conflict of interest

The authors declared an absence of conflict of interest.

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