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DYSMENORRHEA AND FACTORS ASSOCIATED WITH IT AND METHODS OF MANAGEMENT AND EDUCATIONAL KNOWLEDGE AMONG SECONDARY SCHOOL STUDENTS IN BASRAH CITY

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Abstract

Background: Dysmenorrhea is one of the most common and important, health problems, especially among young girls, it results in the absence in school and work. It has some negative effects on the daily activities of the patients.

Aim: to assess the prevalence of Dysmenorrhea, factors associated with it, methods of management and educational knowledge among secondary school students in Basra, we have in this research the demographic information like the age and presence of the student in an education of environment, then we description of the men strual period, then description of the symptoms of dysmenorrheal, also we have some procedures used to manage pain and description of dysmenorrhea and characteristics of pain we also we need know the level of knowledge of female studentints about dysmenorrhea, in the end we made descriptive statistics about the study.

Keywords: Dysmenorrhea, Secondary schools students, Basra.

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Introduction

An essential sign of a woman's reproductive and endocrine health is her menstrual cycle (Allele, 2018; Adversarial, & Pechanga, 2008). Even though it's a normal occurrence, many girls experience discomfort, heavy bleeding, and irregular or irregular menstruation (Kumbhar et al., 2011). One prevalent gynecologic problem among young ladies is dysmenorrhea, or painful menstruation. It is characterized as menstruation-related pelvic discomfort that is linked to a number of other symptoms. Dysmenorrhea is categorized as primary when ovulatory function and pelvic examination are normal, and secondary when a gynecological disease is evident. Typically, primary dysmenorrhea starts in the first year after menarche, when teenagers reach their ovulatory cycles (Durain, 2004). In underdeveloped nations, dysmenorrhea is the most prevalent symptom of all menstrual complaints and has the highest illness burden of any gynecological issue (Patel et al., 2006). Even though it is frequent, dysmenorrhea is still poorly understood and is seldom taken into account when evaluating the health of females (Sharma, Taneja, Sharma, & Saha, 2008). Lower abdominal discomfort or cramping may be accompanied with headaches, lightheadedness, diarrhea, bloating, nausea, vomiting, backaches, and leg pain (Agarwal, & Agarwal, 2010; Adeyemi, & Adekanle, 2007). According to reports, these symptoms account for the majority of teenage visits to gynecologists (Parker, Sneddon, & Arbon, 2010; Sharma, & Gupta, 2003).

The high frequency of dysmenorrhea in teenagers (between 50% and 70%) (9,8). Effects their day-to-day activities, particularly in the first year of their reproductive lives (Sharma, & Gupta, 2003; Ju, Jones, & Mishra, 2014) and it is thus a serious issue for public health (Kural et al., 2015). While irregular menstruation may be typical in the first few years after menarche, other menstrual symptoms and indications, including amenorrhea, excessive uterine bleeding, dysmenorrhea, and premenstrual syndrome, may point to a pathological disease that has to be treated right once and referred to a specialist (Allele, 2018).

Numerous causes are connected to menstruation pain, according to studies on the disorder's prevalence. These variables may affect the frequency and severity of dysmenorrhea. They include age under 20, early menarche, extended or abnormal menstrual flow, and hereditary factors (Rizk et al., 2006; Latthe et al., 2006). It has been shown that changing one's lifestyle, such as adopting a vegetarian diet or diet low in fat, might lessen the frequency and severity of menstrual cramps (French, 2005).

Nonetheless, medication continues to be the most dependable and successful treatment available for stomach discomfort brought on by primary dysmenorrhea (Lefebvre et al., 2005). Many young girls lack proper and sufficient knowledge on menstruation because there is a culture of silence around the subject of menstruation and associated difficulties in many middle- and low-income countries. Teenagers in Nigeria have inadequate information of menstruation and dysmenorrhea, according to prior research (Ogunfowokan, & Babatunde, 2010). A variety of sites provide adolescents with information on menstruation. The primary information source is moms (Wong, 2011, Wijesiri & Suresh, 2013).

In addition, pubertal cleanliness is not often mentioned at home or in schools, particularly in the areas where the present research was carried out. This is in addition to the topic of dysmenorrhea. This issue is more prevalent in traditional, low-education households, which may be mostly caused by cultural norms that prevent young females from receiving enough knowledge. The conversation over the absence of sex education and associated difficulties for young people in schools, the media, and families has been greatly influenced by the unfavorable views of school authorities combined with traditional culture. Due to this, there hasn't been enough information available on pubertal cleanliness, and superstitious ideas about dysmenorrhea and menstruation have often resulted (POUR, & OUSATI, 2020).

Methods

Designing a descriptive cross-sectional study, on female students, to assess dysmenorrhea, factors associated with it, management methods and knowledge. Started December 1, 2022 Until May18th 2023. This study was conducted in three schools, including (Al-Ahla Preparatory School for Girls, Gaza Preparatory School for Girls, Aden Intermediate School for Girls, and Al Rehab Intermediate School for Girls). The current study included a group of schools for girls in Basra Governorate from medium and preparatory stages and from separate areas of the province (2) Secondary School (2) Preparatory School. The number of students submitted by the questionnaire in these schools (300) students. After taking permission from the school authorities, the students were explained the purpose of the study, a rapport was built up with girl students and their verbal consents were obtained. The purpose of the study and the nature of the information, which had to be furnished by the study subjects were explain, Samples were collected from adult female students in their teens, with the exception of female students who had not reached puberty.

The project questionnaire tool that was prepared according to scientific sources related to the subject of the research and approved by specialized professors. The questionnaire consisted of 5 parts. The first part contained 8 questions about demographic characteristics, which included (age, educational environment for the student, exercise, eating main meals, eating foods rich in fats and sugar, eating fast food, drinking coffee, and soft drinks). The second part contained 14 questions to describe the menstrual period and dysmenorrhea. The third part contained 6 questions to describe the symptoms of dysmenorrhea. The fourth part contained 7 questions to describe some of the procedures used to manage pain. The fifth part contained 7 questions to describe the educational knowledge of the student. Analysis was made by using SPSS (Statistical package for Social Sciences) 26. We use two (2) points Likert Scale which ranged from (0) up to (1). The researchers determined (0-0.50) is poor and (0.50-1) is good.

Results

The results of the study show 62% of female students at the age of 13-16 and 55.6% of female students living in a good educational environment and at 61.6% of female students sometimes practicing sports and at 47.6% of students sometimes eating their main meals .and also 80.6% eating sugar and fat in meals and meals 78.3% of them eat fast food and 67.7% do not drink coffee daily and 52% of them drink soft drinks. The results showed that 75% of the first menstruation occurred at the age of (11_13), 61% is the period of the menstrual cycle that was from (6-8) days, 69% of the intensity of menstrual blood flow in medium amounts, and 51% the period between one period and another was (21-29).

The results showed that 70.3% of the female students had knowledge about dysmenorrhea. 44.3% the main source of information about dysmenorrhea was the mother and the percentage of 58.7% of the female students always suffered from pain during the menstrual cycle. The percentage of dysmenorrhea in the family was 65.7%. And 46.3% are the percentage of female students who suffer from pain before menstruation sometimes. 35.3% the pain duration was two days, 70% of female students have pain in the lower abdomen, 46.3% described the severity of the pain as medium. 81% of the female students did not visit the hospital for pain management, and 61.7% missed the exam because of the pain.

The results showed that 54% is the percentage of non-use of medications prescribed by the doctor, 50.3% is the percentage of using a warm pillow to relieve pain, 50% is the percentage of not taking herbs to relieve pain, 78.7% used bed rest

to relieve pain 50.6% is the percentage of paracetamol use and 27.3% is the percentage of use of Ponstan, and 19.6% is the percentage of Voltaren use.

The results showed that 64.7% did not suffer from swelling and pain in the breast, 66.3% is the percentage of female students who suffer from headaches, 62% of the female students suffer from vomiting, 65.7% the percentage of female students who did not suffer from diarrhea, 45.3% the percentage of female students who suffered from nausea, 70.61% suffer from depression and nervousness, 59% were suffering from acne breakouts, and 76.6% suffer from changes in appetite during the menstrual cycle.

Also, the results of the study show 29.6% of the students answered, "I do not agree that moderate pain during menstruation is normal." Also, 57.6% of the students answered, "I do not agree that it is not permissible to take a shower during menstruation." While 48% is the percentage of the answer, I do not agree that it is not permissible to remove hair during menstruation 58.6% responded by not agreeing that it is not permissible to take painkillers during menstruation. Also, 35% did not agree with the answer. Does personal hygiene play a role in menstrual pain? 33% disagree that it is not permissible to exercise during menstruation, and 32.6% agree that moderate pain in the lower abdomen outside menstruation is normal.

Table (1) Distribution of demographic information for High school students (N=300)

Age	13 - 16	186	62%
	17 - 20	114	38%
	Total	300	100%
Presence of the	Good	167	55.6%
student in an	Mild	121	40.3%
educational environment	Weak	10	3.3%
	Total	300	100%
Does the student do	Yes	49	16.3%
sports?	No	66	22%
	Sometimes	185	61.6%
	Total	300	100%
Do you eat your main	Yes	118	39.3%
meals?	No	39	13%
	Sometimes	143	47.6%
	Total	300	100%
Eat foods rich in fatand	Yes	242	80.6%
sugar	No	58	19.4%
	Total	300	100%
Eat fast food	Yes	235	78.3%
	No	65	21.7%
	Total	300	100%
Drink coffee daily	Yes	97	32.3%
	No	203	67.7%
	Total	300	100%
Drinking soft drinks a lot	Yes	156	52%
	No	144	48%
	Total	300	100%
			1

Table (2) Description of the menstrual period

The first menstrual period	11 – 13 Years	227	75.6%
	14 – 16 Years	73	24.3%
	more than	0	0%
	Total	300	100%
The duration of the menstrual	3 - 6 days	103	34.3%
cycle	7 – 9 days	183	61%
	more than	14	4.6%
	Total	300	100%
menstrual blood flow	light	26	8.7%
	Mild	207	69%
	Dense	52	17.3%
	Dense wit clot	15	5%
	Total	300	100%
Period between one menstrual	15 – 20 days	86	28.7%
cycle and another	21 – 29 days	153	51%
	more than	61	20.3%
	Total	300	100%

Table (3) Description of dysmenorrhea and characteristics of pain

Items	Information	Frequency	Percentage
Do you have knowledge about	Yes	211	70.3%
dysmenorrhea (pain associated	No	89	29.7%
with themenstrual cycle)	Total	300	100%
	School	1	0.3%
	nothing	84	28%
	Total	300	100%
Do you suffer from pain in the	Always	176	58.7%
menstrual cycle	sometimes	124	41.3%
	Total	300	100%
Does anyone in the family suffer	Yes	197	65.7%
from dysmenorrhea	No	103	34.3%
	Total	300	100%
Do you suffer from pain before	Always	104	34.4%
your period?	Sometimes	139	46.3%
	Rarely	27	9%
	Never	30	10%
	Total	300	100%
How long does the pain usually	One day	103	34.3%
last?	Two days	106	35.3%
	Three days	63	21%
	more than	28	9.3%
	Total	300	100%
Where do you feel pain?	Lower abdomen	210	70%
	Lower back	83	27.7%
	Thighs	7	2.3%
	Total	300	100%
The severity of the pain	Mild	38	12.7%
J F	moderate	139	46.3
			10.0

	Sever	123	41%
	Total	300	100%
Did you visit the hospital because	Yes	57	19%
of the pain?	No	243	81%
	Total	300	100%
Did you miss exam because of	Yes	185	61.7%
pain	No	115	38.3%
	Total	300	100%

Table (4) Procedures Used to Manage Pain

	Information	Frequency	Percentage
Use of medicines prescribed	Yes	88	29.3%
by a doctor	No	162	54%
	Sometimes	50	16.7%
	Total	300	100%
Use a warm pad	Yes	151	50.3%
	No	123	41%
	Sometimes	26	8.7%
	Total	300	100%
Take certain herbs	Yes	125	41.7%
	No	150	50%
	Sometimes	25	8.3%
	Total	300	100%
Bed rest	Yes	236	78.7%
	No	39	13%
	Sometimes	25	8.3%
	Total	300	100%

Volume 6, Issue 1, March 2024

Table (5) The type of medication used as self-treatment (over-the-counter)

Type of drug	Informati	Frequency	Percentage
	on		
Paracetamol	Yes	152	50.6%
	No	148	49.4%
	Total	300	100%
Ponstan	Yes	82	27.3%
	No	218	72.7%
	Total	300	100%
Voltaren	Yes	59	19.6%
	No	241	80.4%
	Total	300	100%

Table (6) Description of the symptoms of dysmenorrhea

	Information	Frequency	Percentage
Swelling and pain in the	Yes	82	27.3%
breast	No	194	64.7%
	Sometimes	24	8%
	Total	300	100%
Headache	Yes	199	66.3%
	No	73	24.3%
	Sometimes	28	9.3%
	Total	300	100%
Vomiting	Yes	186	62%
	No	90	30%
	Sometimes	24	8%
	Total	300	100%
Diarrhea	Yes	71	23.6%
	No	197	65.6%
	Sometimes	32	10.6%
	Total	300	100%
Nausea	Yes	136	45.3%
	No	134	44.7%
	Sometimes	30	10%
	Total	300	100%
Depression and nervousness	Yes	212	70.6%
	No	66	22%
	Sometimes	22	7.4%
	Total	300	100%
appearance of pills	Yes	177	59%
	No	100	33.3%
	Sometimes	23	7.6%
	Total	300	100%
fluctuation in appetite	Yes	224	76.6%
	No	58	19.3%
	Sometimes	18	6%

Table (7) Educational knowledge for female students

	Information	Frequenc	Percenta
		У	ge
Mild pain during menstruation is	Agree	211	70.3%
normal	Disagree	89	29.6%
	Total	300	100%
It is not permissible to take a	Agree	127	42.3%
shower during menstruation	Disagree	173	57.6%
	Total	300	100%
It is not permissible to remove hair	Agree	156	52%
or cut hair during menstruation	Disagree	144	48%
	Total	300	100%
It is not permissible to take	Agree	124	41.3%
painkillers during menstruation	Disagree	176	58.6%
	Total	300	100%
Does not personal hygiene play a	Agree	195	65%
role in menstrual pain?	Disagree	105	35%
	Total	300	100%
It is not permissible to exercise	Agree	201	67%
during menstruation	Disagree	99	33%
	Total	300	100%
Mild pain in the lower abdomen	Agree	202	67.3%
outside the	Disagree	98	32.6%
menstrual period is normal	Total	300	100%

Table (8) Descriptive Statistics

Paragraph	N	Min	Max	Mean	Std. Deviation	Result
Mild pain during menstruation is normal	300	0.00	1.00	0.3000	.46609	Poor
It is not permissible to take a shower during menstruation	3300	0.00	1.00	0.5667	.50401	Good
It is not permissible to remove hair or cut hair during menstruation	3300	0.00	1.00	0.4667	.50742	Poor
It is not permissible to take painkillers during menstruation	300	0.00	1.00	0.5348	.50398	Good
Does personal hygiene play a role in menstrual pain?	3300	0.00	1.00	0.3333	.47946	Poor
It is not permissible to exercise during menstruation	3300	0.00	1.00	0.3000	.46609	Poor
Mild pain in the lower abdomen outside the menstrual period is normal	300	0.00	1.00	0.3000	.46611	Poor

Table (9) The level of knowledge of female students about dysmenorrhea

Level of knowledge	Frequency	Percentage
Poor	236	78.7%
Good	64	21.3%
Total	300	100%

37

Discussion

The purpose of this research was to evaluate the frequency, severity, management strategies, and level of educational information about dysmenorrhea. The research revealed that the prevalence of dysmenorrhea was rather high, occurring in over half of the female participants at a rate of 53.7%; nevertheless, this incidence was lower than that reported in a study conducted in Kuwait (85.6%) (Brahim et al., 2015). This ratio is within the range of values seen in both industrialized and developing nations. Research revealed that female students in high school and universities had differing prevalence rates of dysmenorrhea; among Mexican female students in high school, the incidence was 48.4% (Ortiz et al., 2009), in northern Saudi Arabia (74.4%) (Abd El-Mawgod, Alshaibany, & Al-Anazi, 2016), in northwestern Ethiopia 91% (Muluneh et al., 2018), in Japan (85%) (Kitamura et al., 2012). The diverse ways that pain experiences occur in various cultures may account for the variation in attribution. One factor that lessens the intensity of dysmenorrhea discomfort is the fact that our research revealed a considerable decline in the number of female students participating in sports on a daily basis (Izzo, & Labriola, 1991; Abbaspour, Rostami, & Najjar, 2006). because it triggers the body to release more endorphins, which reduce anxiety and depressive symptoms and alleviate premenstrual symptoms (Jacquelyn Cafasso, 2022).

The frequency of menstruation issues in adolescent females has been the subject of several research in the past. On the other hand, little study has been done on how it relates to lifestyle issues. Here, we attempted to identify some of the patterns that female student followed in regard to dysmenorrhea, which were exemplified by their lack of physical activity, consumption of foods high in fat and sugar, fast food, and soft drinks and coffee (Fujiwara et al., 2009; Al-Husban et al., 2022) given that teenage females often live similar lives at this period. Adult health may be improved by action at this point since these were changeable variables. It has been observed that many female students with dysmenorrhea have unhealthy eating habits, such as consuming high amounts of fast food, sugar- and fat-filled items, and soft beverages. This could be regarded as an additional dysmenorrhea-related factor (Najafi et al., 2018; Fujiwara et al., 2009).

The female students who participated in our research also provided a description of dysmenorrhea and menstruation, including the age at which they first experienced it. menstrual cycle. An explanation of the menstrual flow. as well as during the time in between cycles. It was observed that a significant portion of the subjects (75.9%) began menstruating around the age of 11 or 13 years, indicating an

early onset of menstruation (Al-Kindi, & Al-Bulushi, 2011; Alia, Shamssain, & Shahwan, 2016). And (61%) had been afflicted for a duration of at least seven days. The blood flow was moderate (69%). Of the female students, (51%) had normal menstruation, whereas the remaining portion of the polytheists experienced irregular periods. Studies carried out in China have shown that irregular menstruation is a risk factor for dysmenorrhea (Hu et al., 2020).

Additionally, in the properties' description A significant portion of female students (70.3%) reported being aware of dysmenorrhea. And the mother (44.7%) was the primary information source (Al-Jefout et al., 2015; De Sanctis et al., 2016). The degree of the mother's education has a crucial impact in the girls' knowledge and cultural background since the mother is a primary source of information about menstruation-related issues. In order to have a beneficial impact on the level of girls' education, it is imperative that parents get knowledge about these reproductive health issues. also being aware of them. In his research (Ju, Jones, & Mishra, 2014; Abu Helwa et al., 2018), it was indicated that 65.7% of female students with dysmenorrhea reported having a family history of the condition in the past. A portion of the female students (34.4%) consistently experienced discomfort prior to the session (Arafa et al., 2018). The most prevalent location of discomfort (70%) was the lower abdomen (Azagew, Kassie, & Walle, 2020). They ranged from mild to severe in their description of the tugging pain associated with their dysmenorrhea (Davis, & Westhoff, 2015). A significant portion of female students reported being in discomfort but choosing not to go to the hospital for treatment.

According to Wong and Khoo (Wong, & Khoo, 2011), despite the high prevalence of dysmenorrhea and its severe effects on participants' life, 70% of participants believed that dysmenorrhea was a typical aspect of the female menstrual cycle, and only 19% sought medical attention. Sultan et al. (Sultan, Gaspari, & Paris, 2012), further shown that only 15% of affected teenagers see a pain specialist in the same vein. However, just 19% sought a healthcare professional. This supports research from other studies that found most women with dysmenorrhea do not seek medical attention (Busari, 2012; Santina, Wehbe, & Ziade, 2012; Wong, 2011). According to Wijesiri and Suresh's findings (Ijesiri, & Suresh, 2013), 70% of participants did not seek medical attention because they felt ashamed talking to someone about their periods. Nonetheless, this supports the results of Chan et al. (Chan et al., 2009), who found that Chinese girls' choice to seek medical attention for menstruation issues was mostly influenced by their fear of humiliating inquiries.

Even though more than half of the study's participants reported higher absenteeism from school as a result of severe menstrual pain, women who experience period pain severe enough to interfere with their regular daily activities at work, school, or home (Olowokere et al., 2014; Dawoo, 2006) have a significant impact on their educational outcomes. But compared to prior research conducted in Ghana, where only 9.2% of young women reported skipping courses, this figure is greater (Gumanga, & Kwame-Aryee, 2012). Nonetheless, the findings are comparable to research conducted in Sri Lanka, where 44% of participants reported skipping school as a consequence of dysmenorrhea (Wijesiri, & Suresh, 2013). Dysmenorrhea-related absences from school must be sufficiently handled since they might have an impact on kids' academic performance on exams. The study's findings also demonstrated that among the major detrimental impacts of dysmenorrhea are lower academic performance, social disengagement, and difficulty concentrating. Approximately 29.3% of the survey participants mentioned using medicine to relieve their discomfort. Research revealed that among women, 50.6% used paracetamol, 27.3% used Ponstan, and 19.6% used Voltaren (Ameade, Amalba, & Mohammed, 2018). According to the results of the present survey, using different herbs and home remedies like bed rest (78.7%) and the use of a heated pillow (50.3%) is quite common (41.7%) when it comes to herbal medicine. According to most research, female students with dysmenorrhea often look for herbal therapies (Parker, Sneddon, & Arbon, 2010; Avasarala, & Panchangam, 2008; Al Asadi, J., & Abdul Qadir, 2013).

The majority of the sample (70%) reported having lower abdominal discomfort, which was followed by other menstrual symptoms including headache (66.3%), breast swelling (27.3%), and vomiting (62%). Additionally, 45.3% reported feeling queasy. Additionally, 23.6% of the female students get diarrhea while they are menstruating. (59%), it seems, take tablets while they are menstruating. There were variations in appetite in addition to the percentage (76.6%). Approximately half of the female individuals with dysthymia reported feeling angry and depressed throughout their menstrual cycle (70.6%). These symptoms resembled those that had been previously documented, such as (Ortiz, 2010; Grandi et al., 2012; Eryilmaz, Ozdemir, & Pasinlioglu, 2010). With regard to the educational knowledge of the participating students, a large percentage of the students, which was (70.3%), agreed that pain during menstruation is a normal matter and does not require seeking health care, while the percentage of (29.6%) did not agree with this and considered menstrual pain as a health problem and requires seeking care. An average percentage of female students, (57.7%), did not agree that it is not permissible to use medications to relieve pain, and the other section had a reluctance to use medications to relieve pain, so

they declared their agreement not to take medications (De Sanctis et al., 2020). A significant portion of female students (42.3%) had the belief that exercising while menstruating is not acceptable. The majority of students (67%) said that exercising while menstruating is not acceptable. This resulted from a lack of understanding about the significance of exercise throughout the menstrual cycle (POUR, & OUSATI, 2020).

Regarding taking a shower, 42.3% of the students agreed that it is not acceptable to do so during the menstrual cycle, meaning that if they did not take a shower during their period, it is not permissible. Conversely, 57.6% of the participants agreed that it is not permissible to take a shower during the menstrual cycle and that they had previously taken one during their period. Consistency with our research findings also shown by other Tehran-based investigations (Poureslami, & Osati-Ashtiani, 2020). It's important to educate women about the benefits of maintaining good personal hygiene during menstruation and how it might lessen discomfort. Parents and educators should be inspired to teach and urge young girls to adopt safe and effective ways for controlling dysmenorrhea. Health care practitioners should also encourage young women to maintain personal cleanliness during menstruation. Conversely, the study's findings show that participants in this investigation lacked sufficient knowledge. Utilizing health instruction to help people translate their knowledge into acceptable health-seeking habits, specific techniques need to be devised. Health care professionals should create plans to educate teenage girls on the causes, signs, and treatments of dysmenorrhea (Bodat, Ghate, & Majumdar, 2013).

Conclusion

Dysmenorrhea was very common among high school students. A few female students visited the hospital to seek health care. They also missed school and exams. Through the characteristics of dysmenorrhea, it was shown that the genetic factor is present in a large proportion in the families of female students. There was a lot of excess in foods high in fats and sugars by the students. Also, most of the students preferred self-management of pain using different methods in this study, we shed light on the educational knowledge of menstruation and dysmenorrhea among female students, and it was found that there was a significant weakness in this knowledge. As it was shown that the student lacks educational knowledge.

Recommendations

The study recommends holding seminars or awareness sessions on matters related to menstruation and related reproductive health, with the participation of the student to increase the extent of knowledge and awareness. providing awareness posters in the classrooms for female students as a warning against excessive harmful foods and explaining the importance of eating vegetables, fruits and meat in moderate quantities, and the role of these foods on the health of the body and the safety of the menstrual cycle. Health education should not only focus on female students, but also should extend to parents every school should have a clinic with a nurse and train her to manage primary dysmenorrhea and refer cases suspected of secondary dysmenorrhea. She assists in administration and reassures the girls, is an advisor to female students regarding the use of medicines and methods of administration to assist in reducing the extent of absenteeism from studies and exams and improving the psychological situation, since a large number of female students suffer from depression during menstruation. And one of the most important recommendations related to personal hygiene and pain, we recommend female students to bring extra clothes and sanitary pads with them to school and analgesic medications to reduce health deterioration during the semester and reduce absenteeism from exams.

References

- Abbaspour, Z., Rostami, M., & Najjar, S. H. (2006). The effect of exercise on primary dysmenorrhea. Journal of Research in Health sciences, 6(1), 26-31.
- Abd El-Mawgod, M. M., Alshaibany, A. S., & Al-Anazi, A. M. (2016). Epidemiology of dysmenorrhea among secondary-school students in Northern Saudi Arabia. Journal of the Egyptian Public Health Association,
- Abu Helwa, H. A., Mitaeb, A. A., Al-Hamshri, S., & Sweileh, W. M. (2018). Prevalence of dysmenorrhea and predictors of its pain intensity among Palestinian female university students. BMC women's health,
- Adeyemi, A. S., & Adekanle, D. A. (2007). Management of dysmenorrhoea among medical students. Int j Gynecol obstet, 7(1), 39-43.
- Adversarial, A. K., & Pechanga, S. (2008). Dysmenorrhea in different settings: are the rural and urban adolescent girls perceiving and managing the dysmenorrhea problem differently? *Indian journal of community medicine*, 33(4), 246-249. 3.
- Agarwal, A. K., & Agarwal, A. (2010). A study of dysmenorrhea during menstruation in adolescent girls. Indian journal of community medicine: official publication of Indian Association of Preventive & Social Medicine, 35(1), 159.
- Al Asadi, J., & Abdul Qadir, R. (2013). Dysmenorrhea and its impact on daily activities among secondary school students in Basra, Iraq. J Fac Med Baghdad, 55(4), 339-344.
- Al-Husban, N., Odeh, O., Dabit, T., & Masadeh, A. (2022). The Influence of Lifestyle

 Variables on Primary Dysmenorrhea: A Cross-Sectional Study.

 International Journal of Women's Health, 545-553
- Alia, S., Shamssain, M., & Shahwan, M. (2016). Prevalence and impact of dysmenorrhea on health-related quality of life in the United Arab Emirates. Eur J Pharm Med Res, 3(2), 77-86.
- Al-Jefout, M., Seham, A. F., Jameel, H., Randa, A. Q., & Luscombe, G. (2015).

 Dysmenorrhea: prevalence and impact on quality of life among young adult

 Jordanian females. Journal of pediatric and adolescent gynecology,
- Al-Kindi, R., & Al-Bulushi, A. (2011). Prevalence and impact of dysmenorrhoea among Omani high school students. Sultan Qaboos University Medical Journal, 11(4), 485-491.

- Allele, M. A. (2018). Dysmenorrhea, associated symptoms, and management among students at King Khalid University, Saudi Arabia: An exploratory study. *Journal of family medicine and primary care, 7*(4), 769. 2.
- Ameade, E. P. K., Amalba, A., & Mohammed, B. S. (2018). Prevalence of dysmenorrhea among university students in Northern Ghana; its impact and management strategies. BMC Women's Health.
- Arafa, A. E., Senosy, S. A., Helmy, H. K., & Mohamed, A. A. (2018). Prevalence and patterns of dysmenorrhea and premenstrual syndrome among Egyptian girls (12–25 years). Middle East Fertility Society Journal,
- Avasarala, A. K., & Panchangam, S. (2008). Dysmenorrhoea in different settings: are the rural and urban adolescent girls perceiving and managing the dysmenorrhoea problem differently? Indian journal of community medicine, 33(4), 246-249.
- Azagew, A. W., Kassie, D. G., & Walle, T. A. (2020). Prevalence of primary dysmenorrhea, its intensity, impact and associated factors among female students at Gondar town preparatory school, Northwest Ethiopia. BMC women's health.
- Bodat, S., Ghate, M. M., & Majumdar, J. R. (2013). School absenteeism during menstruation among rural adolescent girls in Pune. National Journal of Community Medicine, 4(02), 212-216.
- Brahim NK, AlGhamdi MS, Al Shaibani AN, AlAmri FA, Alharbi HA, Al Jadani AK, et al. Dysmenorrhea among female medical students in King Abdulaziz University: Prevalence, predictors and outcome. Pak J Med Sci 2015; 31:1312 7
- Busari, A. O. (2012). Menstrual knowledge and health care behavior among adolescent girls in rural Nigeria. International Journal of Applied Science and Technology, 2(4), 149-154.
- Chan, S. S., Yiu, K. W., Yuen, P. M., Sahota, D. S., & Chung, T. K. (2009). Menstrual problems and health-seeking behaviour in Hong Kong Chinese girls. Hong Kong Med J, 15(1), 18-23.
- Davis, A. R., & Westhoff, C. L. (2015). Primary dysmenorrhea in adolescent girls and treatment with oral contraceptives. Journal of pediatric and adolescent gynecology.
- Dawood, M. Y. (2006). Primary dysmenorrhea: advances in pathogenesis and management. Obstetrics & Gynecology, 108(2), 428-441.

- De Sanctis, V., Soliman, A. T., Daar, S., Di Maio, S., Elalaily, R., Fiscina, B., & Kattamis, C. (2020). Prevalence, attitude and practice of self-medication among adolescents and the paradigm of dysmenorrhea self-care management in different countries. *Acta Bio Medica: Atenei Parmensis*, 91(1), 182.
- De Sanctis, V., Soliman, A. T., Elsedfy, H., Soliman, N. A., Elalaily, R., & El Kholy, M. (2016). Dysmenorrhea in adolescents and young adults: a review in different countries. Acta Biomed,
- Durain, D. (2004). Primary dysmenorrhea: assessment and management update. Journal of midwifery & women's health, 49(6), 520-528.
- 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. Journal of pediatric and adolescent gynecology, 23(5), 267-272.
- French, L. (2005). Dysmenorrhea. PubMed. Am Fam Physician, 71 (2).
- Fujiwara T, Sato N, Awaji H, Sakamoto H, Nakata R. Skipping breakfast adversely affects menstrual disorders in young college students. Int J Food Sci Nutr. 2009;60(6):23–31.40.
- Grandi, G., Ferrari, S., Xholli, A., Cannoletta, M., Palma, F., Romani, C., ... & Cagnacci, A. (2012). Prevalence of menstrual pain in young women: what is dysmenorrhea? Journal of pain research, 169-174.
- Gumanga, S. K., & Kwame-Aryee, R. (2012). Prevalence and severity of dysmenorrhoea among some adolescent girls in a secondary school in Accra, Ghana. Postgraduate medical journal of Ghana, 1(1), 9-14.
- Hu, Z., Tang, L., Chen, L., Kaminga, A. C., & Xu, H. (2020). Prevalence and risk factors associated with primary dysmenorrhea among Chinese female university students: a cross-sectional study. Journal of pediatric and adolescent gynecology, 33(1), 15-22.
- Ijesiri, H. S. M. S. K., & Suresh, T. S. (2013). Knowledge and attitudes towards dysmenorrhea among adolescent girls in an urban school in Sri Lanka. Nursing & health sciences, 15(1), 58-64.
- Izzo, A., & Labriola, D. (1991). Dysmenorrhoea and sports activities in adolescents. Clinical and experimental obstetrics & gynecology, 18(2), 109-116.
- Jacquelyn Cafasso. Why Do We Need Endorphins. Retrieved on the 4th of January,

- 2022.https://altibbi-com.cdn.ampproject.org/v/s/altibbi.com
- Ju, H., Jones, M., & Mishra, G. (2014). The prevalence and risk factors of dysmenorrhea. Epidemiologic reviews, 36(1), 104-113.
- Ju, H., Jones, M., & Mishra, G. (2014). The prevalence and risk factors of dysmenorrhea. Epidemiologic reviews, 36(1), 104-113.
- Kitamura, M., Takeda, T., Koga, S., Nagase, S., & Yaegashi, N. (2012). Relationship between premenstrual symptoms and dysmenorrhea in Japanese high school students. Archives of women's mental health, 15, 131-133.
- Kumbhar, S. K., Reddy, M., Sujana, B., Reddy, R., & Balkrishna, C. (2011). Prevalence of dysmenorrhea among adolescent girls (14-19 yrs) of Kadapa district and its impact on quality of life: A cross sectional study. *National Journal of Community Medicine*, 2(02), 265-268.
- Kural, M., Noor, N. N., Pandit, D., Joshi, T., & Patil, A. (2015). Menstrual characteristics and prevalence of dysmenorrhea in college going girls.

 Journal of family medicine and primary care, 4(3), 426.
- Latthe, P., Mignini, L., Gray, R., Hills, R., & Khan, K. (2006). Factors predisposing women to chronic pelvic pain: systematic review. Bmj, 332(7544), 749-755.
- Lefebvre, G., Pinsonneault, O., Antao, V., Black, A., Burnett, M., Feldman, K., ... & Robert, M. (2005). Primary dysmenorrhea consensus guideline. J Obstet Gynaecol Can, 27(12), 1117-46.
- Muluneh, A. A., Gebreslasie, K. Z., Anteneh, K. T., & Kassa, Z. Y. (2018). Prevalence and associated factors of dysmenorrhea among secondary and preparatory school students in Debremarkos town, North-West Ethiopia. BMC Women's Health, 18(1), 1-8.
- Najafi, N., Khalkhali, H., Moghaddam Tabrizi, F., & Zarrin, R. (2018). Major dietary patterns in relation to menstrual pain: a nested case control study. BMC women's health,
- Ogunfowokan, A. A., & Babatunde, O. A. (2010). Management of primary dysmenorrhea by school adolescents in ILE-IFE, Nigeria. The Journal of School Nursing, 26(2), 131-136.
- Olowokere, A. E., Oginni, M. O., Olajubu, A. O., William, A. E., & Irinoye, O. O. (2014).

 Menstrual disorders: The implications on health and academic activities of female undergraduates in a federal university in Nigeria. Journal of Nursing Education and Practice, 4(5), 126.

- Ortiz, M. I. (2010). Primary dysmenorrhea among Mexican university students: prevalence, impact and treatment. European Journal of Obstetrics & Gynecology and Reproductive Biology, 152(1), 73-77.
- Ortiz, M. I., Rangel-Flores, E., Carrillo-Alarcón, L. C., & Veras-Godoy, H. A. (2009).

 Prevalence and impact of primary dysmenorrhea among Mexican high school students. International Journal of Gynecology & Obstetrics, 107(3), 240-243.
- Parker, M. A., Sneddon, A. E., & Arbon, P. (2010). The menstrual disorder of teenagers (MDOT) study: determining typical menstrual patterns and menstrual disturbance in a large population-based study of Australian teenagers. BJOG: An International Journal of Obstetrics & Gynaecology, 117(2), 185-192.
- Parker, M. A., Sneddon, A. E., & Arbon, P. (2010). The menstrual disorder of teenagers (MDOT) study: determining typical menstrual patterns and menstrual disturbance in a large population-based study of Australian teenagers. BJOG: An International Journal of Obstetrics & Gynaecology, 117(2), 185-192.
- Patel, V., Tanksale, V., Sahasrabhojanee, M., Gupte, S., & Nevrekar, P. (2006). The burden and determinants of dysmenorrhoea: a population-based survey of 2262 women in Goa, India. BJOG: An International Journal of Obstetrics & Gynecology, 113(4), 453-463.
- POUR, E. M., & OUSATI, A. F. (2020). Attitudes of female adolescents about dysmenorrhea and menstrual hygiene in Tehran suburbs.
- POUR, E. M., & OUSATI, A. F. (2020). Attitudes of female adolescents about dysmenorrhea and menstrual hygiene in Tehran suburbs.
- Poureslami, M., & Osati-Ashtiani, F. (2020). Assessing knowledge, attitudes, and behavior of adolescent girls in suburban districts of Tehran about dysmenorrhea and menstrual hygiene. Journal of International Women's Studies, 3(2), 51-61.
- Rizk, D. E., Mosallam, M., Alyan, S., & Nagelkerke, N. (2006). Prevalence and impact of premenstrual syndrome in adolescent schoolgirls in the United Arab Emirates. Acta obstetricia et gynecologica Scandinavica, 85(5), 589-598.
- Santina, T., Wehbe, N., & Ziade, F. (2012). Exploring dysmenorrhoea and menstrual experiences among Lebanese female adolescents. EMHJ- Eastern Mediterranean Health Journal, 18 (8), 857-863, 2012.

- Sharma, A., Taneja, D. K., Sharma, P., & Saha, R. (2008). Problems related to menstruation and their effect on daily routine of students of a medical college in Delhi, India. Asia Pacific Journal of Public Health, 20(3), 234-241.
- Sharma, M., & Gupta, S. (2003). Menstrual pattern and abnormalities in the high school girls of Dharan: a cross sectional study in two boarding schools.

 Nepal Medical College Journal: NMCJ, 5(1), 34-36.
- Sultan, C., Gaspari, L., & Paris, F. (2012). Adolescent dysmenorrhea. *Pediatric and adolescent gynecology*, 22, 171-180.
- Wijesiri, H. S. M. S. K., & Suresh, T. S. (2013). Knowledge and attitudes towards dysmenorrhea among adolescent girls in an urban school in Sri Lanka. Nursing & health sciences, 15(1), 58-64.
- Wong, L. P. (2011). Attitudes towards dysmenorrhoea, impact and treatment seeking among adolescent girls: A rural school-based survey. Australian Journal of Rural Health, 19(4), 218-223.
- Wong, L. P., & Khoo, E. M. (2011). Menstrual-related attitudes and symptoms among multi-racial Asian adolescent females. *International journal of behavioral medicine*, 18, 246-253.