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Dysmenorrhea-Demographics, Absenteeism, Management and Healthcare Seeking Behavior, A Cross-Sectional Study Done in Saudi Arabia.

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ABSTRACT

Introduction: Dysmenorrhea affects up to 91% of females worldwide, with a higher prevalence among adolescents. It has an impacts on the quality of life of females, resulting in absenteeism and presenteeism which can have an impact on the economy. Cultural factors, educational background, and healthcare accessibility influence management strategies. Objectives of the study included determination of demographics, associated symptoms, healthcare seeking behavior and absenteeism due to dysmenorrhea.

Methodology: This cross-sectional study was conducted online using social media platforms. A convenience sampling technique was used. All consenting females aged 18 to 49 years were included in the study. The final sample size was 1,041. Data was collected through a self-structured questionnaire, validated by a pilot study, and analyzed using SPSS Version 23 after ethical approval Local Committee for Biomedical Ethics.

Key Results: Among the participants, 88% experienced dysmenorrhea, most common associated symptoms included diarrhea, urinary frequency, and tiredness followed by lower back pain, leg cramps and breast tenderness. Absenteeism due to dysmenorrhea was reported by 59% of participants, while 70% experienced presenteeism. Healthcare-seeking behavior was low, with only 19% consulting a doctor. Reasons for not seeking healthcare included normalizing symptoms and embarrassment. Severity of pain was significantly associated with absenteeism (p=0.001) and presenteeism (p=0.01).

Conclusion: Dysmenorrhea remains a widespread issue with profound impacts on daily functioning and economic productivity. Mismanagement and cultural stigma contribute to low healthcare utilization. Addressing this requires targeted health education, stigma-free healthcare access, and the promotion of telemedicine for efficient management

Keywords: dysmenorrhea, health-care seeking behavior, absenteeism

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1. INTRODUCTION

Dysmenorrhea, or menstrual cramps, refers to throbbing or cramping pain in the lower abdomen, affecting 41% to 91% of females worldwide, (1) with a higher prevalence observed among adolescents compared to adults. (2) Dysmenorrhea often impacts the quality of life of adult females and has economic consequences, including healthcare costs, absenteeism and presenteeism (3).

Absenteeism refers to being absent from work or school, while presenteeism is the act of attending work but being unproductive due to illness. (4). Mild to moderate cases of dysmenorrhea can often be managed effectively with over-the-counter analgesics and reassurance. However, management strategies vary across cultures, with factors such as education level, cultural acceptance of menstrual cycles as a normal phenomenon, and availability of healthcare services playing significant roles. (5,6)

A study conducted in the USA in 2018 categorized the reasons for not seeking healthcare for dysmenorrhea into nine main themes: assuming symptoms are normal, preferring to self-manage, having limited resources, believing providers would not offer help, lacking awareness of treatment options, considering symptoms tolerable, being wary of treatments, feeling embarrassed or afraid to seek care, and generally not seeking healthcare (7,8)

Dysmenorrhea has a significant impact on the quality of life of females and presents economic challenges, even though effective management is possible. In Saudi Arabia, females constitute 44.8% of the population, and 71% of these are between the ages of 18 and 49 (9). Since females experience menstrual cycles monthly, mismanaged pain can lead to increased absenteeism and reduced productivity in this segment of the workforce. This raises the question: Is dysmenorrhea mismanaged in Saudi Arabia, leading to absenteeism?

Previous population studies on dysmenorrhea in Saudi Arabia have been limited to specific regions and primarily focused on university students, addressing only socio-demographic data and associated symptoms (10). Our study aimed to collect data from females of reproductive age across the country to provide a broader understanding of demographics, management strategies, absenteeism patterns, and healthcare-seeking behavior. (11) Our objectives included determination of demographics, associated symptoms, healthcare seeking behavior, management strategies and assessment of absenteeism due to dysmenorrhea.

2. METHODOLOGY

This was a cross-sectional study conducted online via social media platforms. The sampling technique used was convenience sampling, and the study participants included females from the general community aged 18 to 49 years.

The total population of Saudi Arabia is 34.81 million, with 44.8% being female. Of this, 71% are females aged 18 to 49 years. Using a 95% confidence interval and a 5% margin of error, the required sample size was calculated to be 384 using the OPEN-EPI sample size calculator. The final sample size achieved was 1,041 participants.

Data collection was done using electronic forms shared via Facebook, Twitter, and Snapchat groups. The inclusion criteria were females aged 18 to 49 years.

Data was collected after obtaining approval from the Local Committee for Biomedical Ethics (LCBE). A self-structured questionnaire, validated through a pilot study, was used. The data collected were confidential and anonymous, with informed consent obtained from all participants. Data from the pilot study was excluded from the final analysis.

Data analysis was conducted using SPSS Version 23. Descriptive statistics were performed, and results were compared to meet the study objectives.

3. RESULTS

Table1: Socio-demographic data

=1041	Range	Frequency	Percentage
	18-30	850	81.7%

AGE	31-45	125	12%
	45+	66	6.3%
NATIONALITY	All Saudis		
MARITAL STATUS	Single	741	71.2%
	Married	276	26.5%
	Divorced	22	2.1%
	Widow	2	0.2%
CHILDREN	0	268	25.7%
	1	54	5.2%
	2	38	3.7%
	3	24	2.3%
	4	32	3.1%
	5	34	3.3%
	6+	59	5.7%
EDUCATIONAL STATUS	No formal education	4	0.4%
	High school or below	178	17.1%
	University	859	82.5%
OCCUPATIONAL STATUS	Government employee	243	23.3%
	Private sector	123	11.8%
	Self employed	44	4.2%
	Still completing education	22	2.1%
	Does not have job	609	58.5%
REGION	Al Jouf	381	36.6%
	Northern region	53	5.1%
	Makkah	77	7.4%
	Riyadh	101	9.7%
	Eastern region	85	8.2%
	Najran	62	6%
	Hail	42	4%
	Tabuk	26	2.5%
	Qassim	62	6%
	Asir	41	3.9%
	Baha	30	3.9%
	Jazan	25	2.4%
	Madinah	55	5.3%

SMOKING STATUS	Cigarette	14	1.3%
	E Cigarette	5	0.5%
	Shisha	9	0.9%
	JUUL	0	0
	Vape	16	1.5%
	Do not smoke	997	95.8%

Table2: Frequency of different variables

Variables n=1041	Yes	YES%	No	NO%
Dysmenorrhea	918	88%	123	12%
Absenteeism	610	59%	431	41%
Presenteeism	733	70%	308	30%
Doctors visit	160	19%	840	81%
Variables n=1041	Frequency			
Menarche Average age	12			
Most painful day	Day 2			
Most frequent associated symptoms	Diarrhea, Urinary frequency, Tiredness			

65% of the participants reported as having severe pain, 20% said they had moderate pain on the pain scale while 15% participants reported mild pain. Between 80 and 85 % participants reported having increased frequency of urine, tiredness and diarrhea associated with dysmenorrhea. Almost 60% complained of lower back pain, leg cramps and breast tenderness. 35% participants had bloating, night sweats, mood swings, sleep disturbance and acne. Less than 5% complained about constipation, appetite change, hot flushes or memory loss. All participants had more than one associated symptom with dysmenorrhea.

On average the duration of pain was 3 days and 2nd day was the most painful day for 80% of the participants

Only 150 out of 104, which is 0.14% participants had visited the emergency department for pain management and around 18% had visited an out patient clinic for dysmenorrhea. Other 81% had never discussed dysmenorrhea with any doctor.

Reasons for not discussing dysmenorrhea with doctor are enlisted in figure 1

Figure 1: Reasons for not seeking healthcare

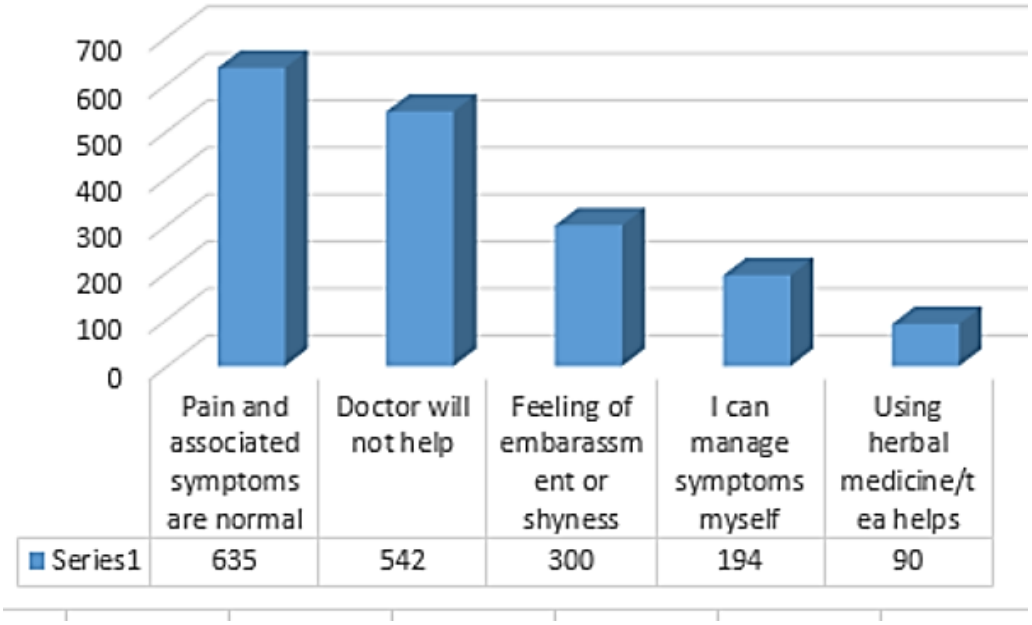
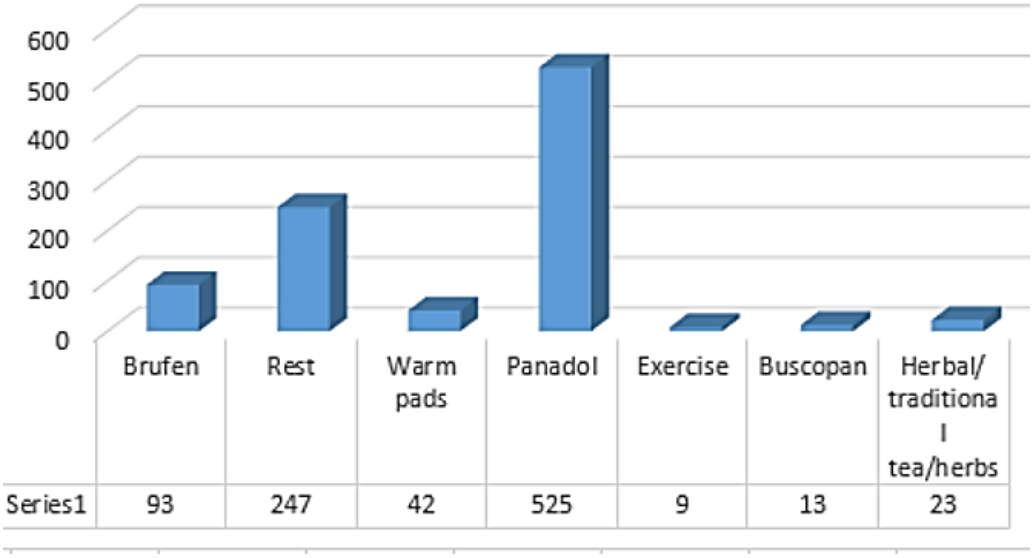


Table 3: Comparison of various variables with absenteeism, presenteeism and health seeking behavior

Variable	Compared with	P value
Absenteeism	Severity Of Pain	.001
	Diarrhea	.023
	Urinary Frequency	.67
	Tiredness	.000
Presenteeism	Pain	.01
	Tiredness	.05
	Sleep disturbance	.002
Health seeking behavior	Education level	.06
	Severity of pain	.023
	Age	.67

Figure 2: Ways of pain management



4. DISCUSSION

The findings of this study on dysmenorrhea among females in Saudi Arabia present significant insights into the demographic patterns, healthcare-seeking behavior, and absenteeism related to menstrual pain. Dysmenorrhea continues to be a pervasive health issue, with the prevalence among females in our study aligning with global statistics that estimate 71-91% of females are affected. The impact of dysmenorrhea on quality of life and economic productivity cannot be understated. Our research reinforces the link between menstrual pain and increased absenteeism and presenteeism in workplaces and educational institutions.

Our research found that among the symptoms associated with dysmenorrhea, the most common were diarrhea, increased frequency of urine and feeling tired. These symptoms which significantly affect daily functioning were also found to be the most common associated symptoms in a study done in 2018 by Alsaleem et al on university students.

Schoep et al in their study in 2019 found that the participants did not seek medical care mostly because they consider the symptoms normal or are embarrassed to in consulting healthcare personnel. These findings align with our results. Despite the availability of analgesics which can be acquired over the counter yet appropriate and expert recommended treatment was not being used.

The economic implications of dysmenorrhea, demonstrated by increased absenteeism and decreased productivity, are substantial. Addressing these issues through evidence-based interventions can contribute to improving workforce efficiency. As Sima et al. suggest, integrating menstrual health support within workplace policies and educational institutions can play a crucial role in reducing absenteeism and promoting women's well-being.

5. CONCLUSION:

Dysmenorrhea is an ailment affecting a significant number of females spread all over the country. Most common associated symptoms are diarrhea, urinary frequency and tiredness. Health seeking behavior is affected by perception of pain being normal and fear or embarrassment of consulting a doctor. It leads to a significant amount of absenteeism and presenteeism

Recommendations: Health education session to raise awareness about healthcare modalities available for easy management of dysmenorrhea and associated symptoms are required to raise awareness about Provision of h healthcare facilities without any stigma at educational institutes and workplace for women to increase control over their health to decrease absenteeism and presenteeism. Promotion of virtual clinic or applications like labbaih for easy 24-hour access to health care

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