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ORIGINAL ARTICLE

Premenstrual syndrome and its impact on quality of life: a comparative study of hostelites and day scholar medical students.

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ABSTRACT… Objective: To compare the impact of premenstrual syndrome on the quality of life of hostelites and day scholar students of Faisalabad Medical University. **Study Design:** Cross-sectional study. **Setting:** Faisalabad Medical University, Pakistan. **Period:** September 2024 to March 2025. **Methods:** A total of 340 female students; 170 hostel residents and 170 day scholars experiencing regular menstrual cycles and symptoms of premenstrual syndrome were recruited through non-probability convenience sampling. Individuals with gynecological issues or a prior history of gynecological surgeries were excluded. Information was obtained via a self-completed printed survey consisting of 26 questions, each offering five responses. The WHOQOL-BREF scoring system was used to determine the effect of PMS on quality of life. It was rated on 5-point Likert scale. The WHOQOL-BREF scoring system was categorized as follows: Poor quality of life (scores 1-26); Fair quality of life (scores 27-52); Good quality of life (scores 53-78); Very good quality of life (scores 79-104); Excellent quality of life (scores 105-130). **Results:** PMS was found to be more severe in hostelites, resulting in significantly poorer quality of life, $p<0.001$. Hostelites reported significantly higher levels of dissatisfaction with their physical environment, transportation, health, personal relationships, living conditions, and leisure activities, with $p<0.01$ each. Satisfaction with health, personal relationships, and living conditions had a positive association with the outcome, with odds ratios of 1.40, 1.43, 1.66 and p-values of 0.01, 0.02, and 0.008, respectively. **Conclusion:** Results revealed poor quality of life due to premenstrual syndrome in hostelites as compared to day scholars.

Key words: Premenstrual Syndrome, Medical Students, Quality of Life, WHOQOL-BREF.

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INTRODUCTION

Premenstrual Syndrome (PMS) was first presented by Horney in her paper as "premenstrual tension" in the 1930s. Nevertheless, the name premenstrual syndrome came up in the 1960s following a number of observations by Dalton.[1] The American College of Obstetricians and Gynaecologists (ACOG) formulated the criteria used in the diagnosis of PMS, and this required that the symptoms must begin within 5 days prior to menstruation and end within 4 days of the onset of the period in at least 3 cycles.[2] Worldwide, between 20-32% of premenopausal women and 30-40% of women of reproductive age reported having PMS during their menstrual cycle[3], while in Pakistan it was reported to be 69.6% (Parveen).[4] It is worth noting that the prevalence of severe PMS varies across different regions, with notable disparities observed among Asian, African, European, and South American women. For instance, 46% of Asian women, 85% of African women, 40% of European women, and 60% of South American women have reported experiencing severe PMS.[5] There has been a hypothesis that attempts to explain the reason behind PMS. These comprise biased hormonal profiles, mainly related to elevated estrogen concentrations, diminished progesterone levels, variations in the progesterone-estrogen allocation, micronutrient shortages, absence of physical exercise, and improper anthropometric indices.[6]

PMS is the cause of the negative change in health status not only in terms of physical health but also psychosocially; this can be to the women, family, and society as a whole. Moreover, it impacts national development by means of such psychological unsteadiness and diminishment of the everyday accomplishments made by women.

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Collectively, PMS is capable of creating a level of difficulty in as much as 3000 days of the entire reproductive life of a lady.[7] Despite its prevalence, PMS is often underdiagnosed and inadequately managed, particularly in professional settings where the cyclical nature of the symptoms may lead to inconsistent performance, impaired social and interpersonal connections, more frequent hospital visits, and increased absenteeism.[8]

In Pakistan, cultural constraints often make girls hesitant to discuss menstruation-related issues, leading to both physical and psychological discomfort, which ultimately affects their quality of life. Punjab is Pakistan's most populous and relatively urbanized province, but despite educational and healthcare advancements, menstruation, including PMS, remains a taboo topic, especially in rural communities. These stigmas are a big barrier for the women to seek help for their physical and mental discomfort. Most research around PMS has been found to focus on prevalence, etiology, risk factors, and association with other psychiatric disorders. Nonetheless, there is a paucity of research that has evaluated the implication of premenstrual syndrome on quality of life, especially in the light of Pakistan. Moreover, the majority of research conducted thus far has been biased towards the adolescents, which prominently occurs in young girls.[9,1] Female students, especially those living in hostels, usually experience exacerbation of PMS symptoms because of the stress of living in a hostel, academic pressure, and changes in routine.[10] Irregular physical activity, less control over their diet and sleep patterns, which can impact hormone regulation, and the social dynamics of living in close quarters with others can also contribute to the severity of PMS. But unfortunately, to our knowledge, this issue remained undocumented in existing research.

There are no prior researches that study the effect of PMS on the quality of life, which dominates the need to fill such a gap among the hostelite students. This paves a way to more studies concerning PMS among the hostelites in Pakistan. Therefore, our aim was to compare the effect of PMS on the quality of life among female hostelite and day scholar students of Faisalabad Medical University, Pakistan. This research will not only aid in early diagnosis and management but also enhance awareness and understanding of PMS and its impact on every day's routines. Additionally, the findings can serve as baseline data for future interventional studies and support the development and implementation of targeted educational and support programs for women.

METHODS

This was a cross-sectional study conducted at Faisalabad Medical University (FMU), Faisalabad, between September 2024 and March 2025. The Research and Ethics Committee of the University of Lahore gave the ethical approval of the study (Ref. No: REC-UOL-364/08/24, dated 12-8-2024). The target sample size was calculated to be 339 female students; the value has been revised to 340 to divide it into two equal groups. This calculation was based on Cochran's formula, which is appropriate for estimating sample sizes in health-related research: Cochran's Formula: n = (Z^2 x P x (1-P)) / E^2, Where Z = corresponds to the desired degree of confidence (e.g., 95% confidence level = 1.96), n is the sample size, P = expected prevalence or frequency of PMS symptoms (i.e 64.9% from, E = desired margin of error (as a decimal) = 5% = 0.05.[11]

Plugging in the values in formula:
n = (Z^2 x P x (1-P)) / E^2,
n = (1.96^2 x 0.649 x (1-0.649)) / (0.05^2)
n = (3.8416 x 0.649 x 0.351) / (0.0025)
n = 338.45
n = 339

A total of 340 females; 170 hostelites and 170 day scholars with regular menstrual cycles and symptoms of PMS were included in the study through convenient sampling. This research is research in continuity with our former research, where we evaluated the severity of the PMS symptoms among the students. The study involved same students. Students with a history of polycystic ovaries, endometriosis, chronic medical conditions, or taking hormonal contraceptives or who had undergone gynecological surgeries were not included in the study. To the participants available, there was a speech to show the purpose of the study, followed by the procedures that were carried out in every class. The female students that

were ready to take part in the study were invited to click here to take the questionnaire in a special room where they were suggested to fill out the test. The study was voluntary and not remunerative (financially or otherwise).

A self-administered print questionnaire, composed of 26 items, was used to collect the data on the group of the diagnosed participants of PMS to evaluate the PMS effect on the quality of life. First it was done as a pilot study on 20 students to ensure that the questionnaire is valid, reliable, and has no problems. The data regarding sociodemographic characteristics of the students and severity of PMS was already obtained in the previous study. There was a total of 26 questions, each with 5 options. The questionnaire was distributed among the participants, who were instructed to fill it out anonymously within 30-35 minutes. Upon completion, the questionnaires were collected and examined for completeness. The WHOQOL-BREF scoring system was used to measure the extent to which PMS affected the quality of life. It was rated on 5-point Likert scale (1 = Poor/very dissatisfied/Not at all/always, 2 = Very poor/dissatisfied/less/often, 3 = Neither poor nor good/neither satisfied nor dissatisfied/Moderately/sometimes, 4 = Good/satisfied/very much/rarely, 5 = Very good/very satisfied/extremely/never), with scores ranging from 1-130. The WHOQOL-BREF scoring system was categorized as follows: Poor quality of life (scores 1-26); Fair quality of life (scores 27-52); Good quality of life (scores 53-78); Very good quality of life (scores 79-104); Excellent quality of life (scores 105-130).[12,13] All information and data collection were kept confidential, and the participants remained anonymous throughout the study.[14-16]

Data Analysis and Interpretation

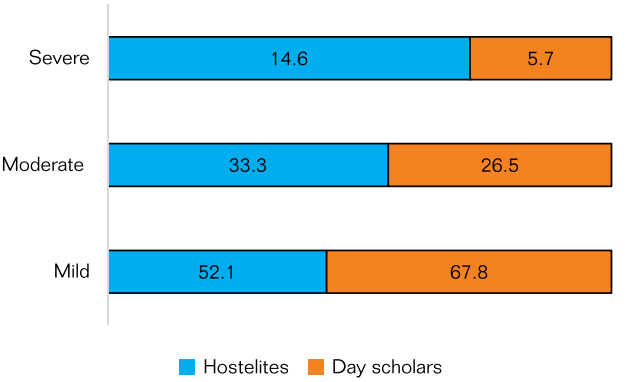
The objective of the study required analysis of data through the use of descriptive and inferential statistics based on SPSS version 22.0. Under descriptive analysis, calculation was performed using frequency and percentage. The t-test was used to compare the mean scores of PMS symptoms and quality of life between hostel-based and day scholar students. A multivariable logistic regression analysis examined the predictive relationship between symptoms of PMS and quality of life scores, controlling for potential confounding variables. All tests were done using a 95% confidence interval, and the level of significance was taken to be p=0.05.

RESULTS

A total of 340 participants were enrolled in the study, comprising 170 hostelites and 170 day scholars. The mean age of the participants was 22.4 ± 1.0 years. The cultural background and general lifestyle habits were largely similar among all participants. The severity of PMS symptoms was higher in hostilities than day scholars. Whereas, mild PMS symptoms were more frequently reported by day scholars (Figure-1).

FIGURE-1

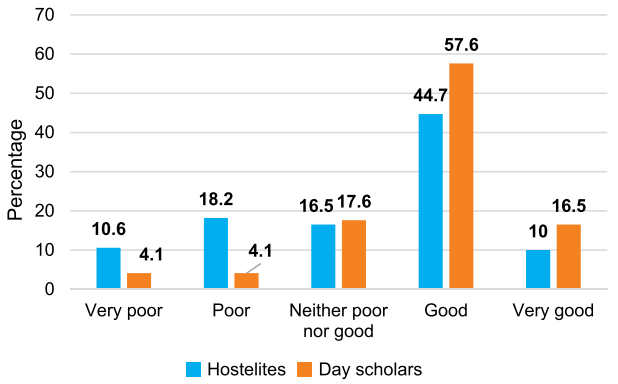
Severity of PMS symptoms among hostelites and day scholars (n=340)



The study revealed notable differences in the quality of life among hostel-based and day scholar medical students, particularly concerning premenstrual syndrome (PMS). Hostel-based students report a significantly poorer quality of life, with 10.6% in the "very poor" category, compared to 4.1% of day scholars, p<0.001. Based on the WHOQOL-BREF scale, hostel-based students scored mostly in the "Fair to Good" range (26-75), reflecting the negative impact of PMS on their mental and physical well-being. While day scholars had a higher proportion of students scoring in the "Good to Very Good" range (51-100), indicating a relatively better quality of life (Figure-2).

FIGURE-2

Impact of PMS on quality of life (values are expressed in %), n=340



Hostel-based students reported significantly higher levels of dissatisfaction with their physical environment (p=0.01), transportation (p<0.001), health (p<0.001), personal relationships (p<0.001), living conditions (p<0.001), and leisure activities (p<0.001) (Table-I (a) & I (b)). Hostel-based students showed significantly lower energy levels for daily activities (p<0.001), dissatisfaction with their work capacity (p<0.001), and sleep (0.09) (Table-II).

The regression analysis revealed several significant findings. Quality of life had a positive association with the outcome, with an odds ratio of 1.567 and a p-value of 0.003. Similarly, satisfaction with health also showed a positive impact, with an odds ratio of 1.405 and a p-value of 0.011.

TABLE-I (a)

Comparison of scores of various domains of quality-of-life between hostelites and day scholars, n=340

Variable	Category	Hostel-Based	Day Scholar	Total	P-Value
		Count (% Within Residence)	Count (% Within Residence)		
Satisfaction with Physical Environment	Very dissatisfied	12 (7.2%)	4 (2.4%)	16 (4.8%)	0.01
	Dissatisfied	33 (19.8%)	33 (19.8%)	66 (19.8%)	
	Neither satisfied nor dissatisfied	61 (36.5%)	41 (24.6%)	102 (30.5%)	
	Satisfied	55 (32.9%)	78 (46.7%)	133 (39.8%)	
	Very satisfied	6 (3.6%)	11 (6.6%)	17 (5.1%)	
Satisfaction with Financial Resources	Very dissatisfied	10 (6.0%)	7 (4.2%)	17 (5.1%)	0.27
	Dissatisfied	14 (8.3%)	24 (14.3%)	38 (11.3%)	
	Neither satisfied nor dissatisfied	34 (20.2%)	24 (14.3%)	58 (17.3%)	
	Satisfied	82 (48.8%)	81 (48.2%)	163 (48.5%)	
	Very satisfied	28 (16.7%)	32 (19.0%)	60 (17.9%)	
Satisfaction with Transportation	Very dissatisfied	27 (16.1%)	4 (2.4%)	31 (9.2%)	<0.001
	Dissatisfied	31 (18.5%)	29 (17.3%)	60 (17.9%)	
	Neither satisfied nor dissatisfied	29 (17.3%)	31 (18.5%)	60 (17.9%)	
	Satisfied	64 (38.1%)	76 (45.2%)	140 (41.7%)	
	Very satisfied	17 (10.1%)	28 (16.7%)	45 (13.4%)	
Satisfaction with Information Access	Very dissatisfied	8 (4.8%)	4 (2.4%)	12 (3.6%)	0.45
	Dissatisfied	17 (10.1%)	18 (10.7%)	35 (10.4%)	
	Neither satisfied nor dissatisfied	33 (19.6%)	26 (15.5%)	59 (17.6%)	
	Satisfied	87 (51.8%)	88 (52.4%)	175 (52.1%)	
	Very satisfied	23 (13.7%)	32 (19.0%)	55 (16.4%)	
Satisfaction with Health	Very dissatisfied	35 (20.6%)	8 (4.7%)	43 (12.6%)	<0.001
	Dissatisfied	45 (26.5%)	38 (22.4%)	83 (24.4%)	
	Neither satisfied nor dissatisfied	34 (20.0%)	49 (28.8%)	83 (24.4%)	
	Satisfied	48 (28.2%)	61 (35.9%)	109 (32.1%)	
	Very satisfied	8 (4.7%)	14 (8.2%)	22 (6.5%)	

However, physical health interference had a negative effect on the outcome, with an odds ratio of 0.698 and a p-value of 0.016. Satisfaction with personal relationships was positively associated with the outcome, with an odds ratio of 1.435 and a p-value of 0.023. Additionally, satisfaction with living conditions had a positive association, with an odds ratio of 1.667 and a p-value of 0.008. Satisfaction with financial resources showed a negative effect, with an odds ratio of 0.634 and a p-value of 0.015.

TABLE-I (b)

Comparison of scores of various domains of quality-of-life between hostelites and day scholars, n=340

Variable	Category	Hostel-Based	Day Scholar	Total	P-Value
		Count (% Within Residence)	Count (% Within Residence)		
Satisfaction with Personal Relationships	Very dissatisfied	22 (13.2%)	7 (4.2%)	29 (8.7%)	0.001
	Dissatisfied	30 (18.0%)	15 (9.0%)	45 (13.5%)	
	Neither satisfied nor dissatisfied	27 (16.2%)	37 (22.2%)	64 (19.2%)	
	Satisfied	66 (39.5%)	90 (53.9%)	156 (46.7%)	
	Very satisfied	22 (13.2%)	18 (10.8%)	40 (12.0%)	
Satisfaction with Love Support	Very dissatisfied	20 (12.0%)	14 (8.5%)	34 (10.2%)	0.54
	Dissatisfied	12 (7.2%)	9 (5.5%)	21 (6.3%)	
	Neither satisfied nor dissatisfied	32 (19.2%)	37 (22.4%)	69 (20.8%)	
	Satisfied	74 (44.3%)	68 (41.2%)	142 (42.8%)	
	Very satisfied	29 (17.4%)	37 (22.4%)	66 (19.9%)	
Satisfaction with Social Support	Very dissatisfied	16 (9.6%)	8 (4.8%)	24 (7.2%)	0.29
	Dissatisfied	14 (8.4%)	23 (13.7%)	37 (11.0%)	
	Neither satisfied nor dissatisfied	38 (22.8%)	40 (23.8%)	78 (23.3%)	
	Satisfied	84 (50.3%)	82 (48.8%)	166 (49.6%)	
	Very satisfied	15 (9.0%)	15 (8.9%)	30 (9.0%)	
Safety in Daily Life	Very dissatisfied	9 (5.4%)	6 (3.6%)	15 (4.5%)	0.23
	Dissatisfied	16 (9.5%)	12 (7.2%)	28 (8.4%)	
	Neither satisfied nor dissatisfied	42 (25.0%)	30 (18.0%)	72 (21.5%)	
	Satisfied	77 (45.8%)	97 (58.1%)	174 (51.9%)	
	Very satisfied	24 (14.3%)	22 (13.2%)	46 (13.7%)	
Satisfaction with Living Conditions	Very dissatisfied	22 (13.1%)	3 (1.8%)	25 (7.4%)	< 0.001
	Dissatisfied	17 (10.1%)	9 (5.4%)	26 (7.7%)	
	Neither satisfied nor dissatisfied	38 (22.6%)	22 (13.1%)	60 (17.9%)	
	Satisfied	61 (36.3%)	105 (62.5%)	166 (49.4%)	
	Very satisfied	30 (17.9%)	29 (17.3%)	59 (17.6%)	
Access to Healthcare Services	Very dissatisfied	10 (6.0%)	6 (3.6%)	16 (4.8%)	0.077
	Dissatisfied	24 (14.3%)	20 (11.9%)	44 (13.1%)	
	Neither satisfied nor dissatisfied	45 (26.8%)	30 (17.9%)	75 (22.3%)	
	Satisfied	68 (40.5%)	77 (45.8%)	145 (43.2%)	
	Very satisfied	21 (12.5%)	35 (20.8%)	56 (16.7%)	
Opportunities for Leisure Activities	Very dissatisfied	14 (8.3%)	9 (5.4%)	23 (6.8%)	0.009
	Dissatisfied	34 (20.2%)	32 (19.0%)	66 (19.6%)	
	Neither satisfied nor dissatisfied	54 (32.1%)	42 (25.0%)	96 (28.6%)	
	Satisfied	59 (35.1%)	59 (35.1%)	118 (35.1%)	
	Very satisfied	7 (4.2%)	26 (15.5%)	33 (9.8%)	

TABLE-II

Comparison of scores of various domains of quality-of-life between hostelites and day scholars, n=340

Variable	Category	Hostel-Based Count (% Within Residence)	Day Scholar Count (% Within Residence)	Total	P-Value
Physical Health Interference	None at all	8 (4.7%)	13 (7.6%)	21 (6.2%)	0.09
	Less	32 (18.8%)	39 (22.9%)	71 (20.9%)	
	Moderately	52 (30.6%)	62 (36.5%)	114 (33.5%)	
	Very much	60 (35.3%)	48 (28.2%)	108 (31.8%)	
	Extremely	18 (10.6%)	8 (4.7%)	26 (7.6%)	
Need Medical Treatment	None at all	38 (22.5%)	52 (30.6%)	90 (26.5%)	0.07
	Less	58 (34.3%)	68 (40.0%)	126 (37.2%)	
	Moderately	57 (33.7%)	38 (22.4%)	95 (28.0%)	
	Very much	12 (7.1%)	11 (6.5%)	23 (6.8%)	
	Extremely	4 (2.4%)	1 (0.6%)	5 (1.5%)	
Ability to get around	None at all	5 (3.0%)	3 (1.8%)	8 (2.4%)	0.64
	Less	27 (16.5%)	27 (16.6%)	54 (16.5%)	
	Moderately	84 (51.2%)	89 (54.6%)	173 (52.9%)	
	Very much	35 (21.3%)	37 (22.7%)	72 (22.0%)	
	Extremely	13 (7.9%)	7 (4.3%)	20 (6.1%)	
Energy for Daily Activities	None at all	7 (4.1%)	4 (2.4%)	11 (3.3%)	<0.001
	Less	47 (27.8%)	31 (18.5%)	78 (23.1%)	
	Moderately	67 (39.6%)	98 (58.3%)	165 (49.0%)	
	Very much	31 (18.3%)	33 (19.6%)	64 (19.0%)	
	Extremely	17 (10.1%)	2 (1.2%)	19 (5.6%)	
Satisfaction with sleep	None at all	21 (12.4%)	11 (6.5%)	32 (9.5%)	0.009
	Less	32 (18.9%)	28 (16.7%)	60 (17.8%)	
	Moderately	59 (34.9%)	68 (40.5%)	127 (37.7%)	
	Very much	33 (19.5%)	51 (30.4%)	84 (24.9%)	
	Extremely	24 (14.2%)	10 (6.0%)	34 (10.1%)	
Satisfaction with daily activities	None at all	13 (7.7%)	5 (3.0%)	18 (5.3%)	0.23
	Less	25 (14.8%)	31 (18.5%)	56 (16.6%)	
	Moderately	91 (53.8%)	97 (57.7%)	188 (55.8%)	
	Very much	36 (21.3%)	29 (17.3%)	65 (19.3%)	
	Extremely	4 (2.4%)	6 (3.6%)	10 (3.0%)	
Satisfaction with work capacity	None at all	9 (5.3%)	6 (3.6%)	15 (4.5%)	<0.001
	Less	41 (24.1%)	30 (18.0%)	71 (21.1%)	
	Moderately	65 (38.2%)	99 (59.3%)	164 (48.7%)	
	Very much	33 (19.4%)	27 (16.2%)	60 (17.8%)	
	Extremely	22 (12.9%)	5 (3.0%)	27 (8.0%)	

TABLE-III

Comparison of scores of various domains of quality-of-life between hostelites and day scholars, n=340

Variable	Category	Hostel-Based	Day Scholar	Total	P-Value
		Count (% Within Residence)	Count (% Within Residence)		
Enjoy Life	Always	20 (11.9%)	19 (11.3%)	39 (11.6%)	0.77
	Often	61 (36.3%)	64 (38.1%)	125 (37.2%)	
	Sometimes	61 (36.3%)	62 (36.9%)	123 (36.6%)	
	Rarely	18 (10.7%)	19 (11.3%)	37 (11.0%)	
	Never	8 (4.8%)	4 (2.4%)	12 (3.6%)	
Depressed Negative Feelings	Always	18 (10.7%)	13 (7.7%)	31 (9.2%)	0.69
	Often	59 (34.9%)	57 (33.9%)	116 (34.4%)	
	Sometimes	60 (35.5%)	71 (42.3%)	131 (38.9%)	
	Rarely	28 (16.6%)	23 (13.7%)	51 (15.1%)	
	Never	4 (2.4%)	4 (2.4%)	8 (2.4%)	
Ability to Concentrate	Always	13 (7.7%)	7 (4.2%)	20 (6.0%)	0.36
	Often	73 (43.5%)	62 (37.6%)	135 (40.5%)	
	Sometimes	53 (31.5%)	66 (40.0%)	119 (35.7%)	
	Rarely	24 (14.3%)	26 (15.8%)	50 (15.0%)	
	Never	5 (3.0%)	4 (2.4%)	9 (2.7%)	
Satisfaction with Self	Always	28 (16.6%)	24 (14.5%)	52 (15.5%)	0.86
	Often	59 (34.9%)	67 (40.4%)	126 (37.6%)	
	Sometimes	53 (31.4%)	51 (30.7%)	104 (31.0%)	
	Rarely	19 (11.2%)	16 (9.6%)	35 (10.4%)	
	Never	10 (5.9%)	8 (4.8%)	18 (5.4%)	
Life Meaningful	Always	34 (20.4%)	31 (18.6%)	65 (19.5%)	0.71
	Often	56 (33.5%)	56 (33.5%)	112 (33.5%)	
	Sometimes	49 (29.3%)	59 (35.3%)	108 (32.3%)	
	Rarely	22 (13.2%)	16 (9.6%)	38 (11.4%)	
	Never	6 (3.6%)	5 (3.0%)	11 (3.3%)	
Acceptance of Bodily Appearance	Always	58 (34.7%)	46 (27.7%)	104 (31.2%)	0.61
	Often	52 (31.1%)	55 (33.1%)	107 (32.1%)	
	Sometimes	32 (19.2%)	39 (23.5%)	71 (21.3%)	
	Rarely	15 (9.0%)	18 (10.8%)	33 (9.9%)	
	Never	10 (6.0%)	8 (4.8%)	18 (5.4%)	

TABLE-IV (a)

Showing logistic regression analysis of quality-of-life variables of participants

Variable	B	S.E.	Wald	df	Sig.	Exp (B)	95% C.I for EXP(B)	
							Lower	Upper
Quality of Life	0.449	0.150	8.906	1	0.003	1.567	1.167	2.104
Satisfaction with Health	0.340	0.134	6.441	1	0.011	1.405	1.081	1.827
Physical Health Interference	-0.360	0.149	5.812	1	0.016	0.698	0.520	0.935
Need Medical Treatment	-0.078	0.157	0.249	1	0.617	0.925	0.680	1.258
Ability to Get Around	0.124	0.193	0.413	1	0.520	1.132	0.776	1.651
Energy for Daily Activities	-0.098	0.201	0.236	1	0.627	0.907	0.612	1.345
Satisfaction with Sleep	-0.031	0.136	0.051	1	0.822	0.970	0.742	1.267
Satisfaction with Daily Activities	0.058	0.245	0.056	1	0.812	1.060	0.656	1.712
Satisfaction with Work Capacity	-0.331	0.195	2.870	1	0.090	0.719	0.490	1.053
Enjoy Life	0.079	0.189	0.172	1	0.678	1.082	0.747	1.567
Depressed Negative Feelings	-0.138	0.177	0.606	1	0.436	0.871	0.615	1.233
Ability to Concentrate	0.262	0.184	2.029	1	0.154	1.299	0.906	1.862
Satisfaction with Self	-0.001	0.172	0.000	1	0.993	0.999	0.713	1.399
Life Meaningful	-0.032	0.163	0.038	1	0.846	0.969	0.703	1.334
Acceptance of Bodily Appearance	0.120	0.134	0.809	1	0.369	1.128	0.868	1.466
Satisfaction with Personal Relationships	0.361	0.159	5.184	1	0.023	1.435	1.051	1.957

TABLE-IV (b)

Showing logistic regression analysis of quality-of-life variable of participants

Variable	B	S.E.	Wald	df	Sig.	Exp (B)	95% C.I for EXP(B)	
							Lower	Upper
Satisfaction with Love Support	-0.106	0.168	0.398	1	0.528	0.899	0.646	1.251
Satisfaction with Social Support	-0.365	0.190	3.670	1	0.055	0.694	0.478	1.008
Safety in Daily Life	-0.134	0.204	0.431	1	0.511	0.874	0.586	1.305
Satisfaction with Living Conditions	0.511	0.193	6.981	1	0.008	1.667	1.141	2.434
Access to Healthcare Services	0.135	0.187	0.524	1	0.469	1.145	0.793	1.652
Opportunities for Leisure Activities	0.036	0.172	0.045	1	0.833	1.037	0.741	1.452
Satisfaction with Physical Environment	0.227	0.194	1.365	1	0.243	1.255	0.857	1.836
Satisfaction with Financial Resources	-0.456	0.188	5.897	1	0.015	0.634	0.438	0.916
Satisfaction with Transportation	0.391	0.155	6.360	1	0.012	1.479	1.091	2.004
Satisfaction with Information Access	-0.281	0.197	2.035	1	0.154	0.755	0.513	1.111
Constant	-2.185	1.613	1.835	1	0.176	0.113		

DISCUSSION

PMS is an important gynaecological issue that can range from mild cyclical symptoms to moderate and severe physical and psychological symptoms. This affects the quality of life significantly, rendering daily life hard or impossible to contain daily activities. To our knowledge, it is the first study comparing the impact of PMS on the quality of life among hostelite and day scholar students. Results of the current study revealed higher severity of PMS symptoms in students residing in hostels than in day scholars. Hostel-based students were found to have a significantly poorer quality of life, p<0.001. Hostel-based students reported significantly higher levels of dissatisfaction with their physical environment, transportation, health, personal relationships, living conditions, and leisure activities, with p<0.001 each. Satisfaction with health had a positive association with the outcome, with an odds ratio of 1.56 and 1.40, and p-value of 0.003 and 0.01, respectively. Satisfaction with personal relationships and living conditions was positively associated with the outcome, with odds ratios of 1.43 and 1.66, and p-values of 0.023 and 0.008, respectively.

Previous studies have similarly highlighted the detrimental effects of PMS on quality of life and academic performance. For instance, research conducted among female university students reported that PMS significantly disrupted academic activities, leading to reduced concentration and engagement.[17] A study was carried out by Maheshwari et al. to have knowledge about the effect of PMS on the quality of life. It was observed that the work life quality was worse in 35 percent of the population with PMS than in 19 percent without PMS, and this was statistically significant (P<0.001). Participants with PMS had lower scores in all areas of quality of work life, except homework interface.1 Al-Hmaid et al. conducted a study that compared the quality of life between nurses with and without PMS in Jordanian nurses. Higher mean WRQoL (65.47, SD = 15.38; 70.54, SD = 14.47, respectively) was seen with nurses with PMS than those without PMS.[7] Batool et al. performed a similar study and identified bloating, anger, depression, and tiredness, as highly significant factors disturbing the daily routine of the participants.[18] The findings of another study conducted by Iqbal et al. disclosed that there was a great negative relationship between PMS and job performance amongst participants, with increased PMS symptoms being associated with decreased job performance. This result aligns with previous research, which has indicated that PMS can adversely affect various aspects of daily life, including professional responsibilities.[19] Our findings back up what others have discovered.

In a different research, 45.8 percent of medical personnel reported severe PMS. The binary logistic regression demonstrated that a medical worker, clinical specialty, 8 or more years of job experience, 24 or more working hours per week, and medical workers lacking a standard hourly schedule are predictors of severe PMS. PMS has been discovered to be a statistically significant independent variable of poor WRQL (p<0.001). The observed correlation r was highly significant between the PMS and WRQL scores, and the value was (r = -0.302, p < 0.001).[2]

According to scientific reports, PMS causes poor interpersonal relationships or workplace performance in 3-8 percent of the women of childbearing age.6 In a study by Kahyaoglu et al., they discovered that nurses who had PMS had earned a lower score of job satisfaction that was attributed to work-related stress and reduced job performance.[20] Results of the current study also found a strong association between the severity of PMS and adverse interpersonal relationships. Emotional instability, irritability, and mood fluctuations may lead to misunderstandings, reduced social interaction, and strained personal connections. With the help of the WHOQOL BREF scale, the health-related quality of life was observed to be considerably derailed in the case of girls with PMS (p<0.001). They also established that 80.4 percent of the students in the healthy group had to have minimal medical intervention daily to enable them to perform their daily functions. Nevertheless, 50.7 percent of the students needed a moderate dose of drugs to perform everyday activities (p-value = 0.001).21 The work capacity was also seen to be significantly related to the prevalence of PMS (p=0.02). Most of the students (40.3 percent) were dissatisfied with their ability to work as compared to that of healthy students. Equally, psychological domain scores of students are considerably (p<0.001) low

as compared to healthy students. The results are in line with the findings in the current study, where the quality of life is assessed, especially using the same scale.

A key strength of the study is its focus on hostelite students, a specific high-stress group whose well-being is vital, as they hold significant potential to contribute to society through medical practice, research, community service, and advocacy. By using a well-validated questionnaire and robust statistical analysis, the study provided reliable and actionable insights. According to the present study, PMS is quite severe in hostelite students as compared to day scholars. Both of them exhibited low WRQOL scores; however, the scores were particularly lower among hostelites. It may be because of the stress and unfavorable conditions that hostelites faces. It has been shown to have an impact on all aspects of a woman's life, including daily activity, social life, study, and work productivity.[22] Making the environment comfortable and controlling stress can improve the quality of life for hostelites. Moreover, the significant correlation between PMS and quality of life emphasizes the need for academic institutes to recognize PMS as a legitimate public health issue and to develop supportive strategies to mitigate its impact.

CONCLUSION

Out of the study, we got the result that severe PMS was extremely widespread in students who lived in hostels and had very low-quality lives. Satisfaction with health, personal relationships, and living conditions had a positive association with the outcome. In schools, college and the universities, teaching and awareness programs should be made to increase the understanding of PMS and ways to manage it.

LIMITATIONS

The reliance on self-reported data may have introduced recall and response biases, as participants might have provided socially desirable answers.

RECOMMENDATION

Studies trying to establish the permanent impacts of PMS on the quality of life and academic performances should be considered in the future. It is also recommended that university students be educated on coping strategies and available treatments while encouraging them to seek appropriate care.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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AUTHORSHIP AND CONTRIBUTION DECLARATION	
1	**Saima Kanwal:** Study design, drafting.
2	**Laiyla Shinwari:** Literature search, acquisition of data.
3	**Rizwan Faisal:** Data analysis, interpretation of data.
4	**Rana Muhammad Saleem:** Contribution to concept, final approval.