How to Cite:

Qalawa, S. A. A., Alsuhaibani, H. O., Alluhaydan, A. A., & Alghaidani, A. A. (2022). Health beliefs and coping strategies regarding premenstrual syndrome among health college students at Qassim University. *International Journal of Health Sciences*, 6(S8), 4264–4277. https://doi.org/10.53730/ijhs.v6nS8.13145

Health beliefs and coping strategies regarding premenstrual syndrome among health college students at Qassim University

Dr. Shereen Ahmed A. Qalawa

Associate professor, Department of Medical- Surgical Nursing, College of Nursing, Qassim University, KSA & Professor, Department of Medical- Surgical Nursing, Faculty of Nursing, Port-Said University, Egypt

Hind Omar Alsuhaibani

Bachelor of nursing Sciences, College of Nursing, Qassim University, KSA

Atheer Abdullah Alluhaydan

Bachelor of nursing Sciences, College of Nursing, Qassim University, KSA

Amjad Ayidh Alghaidani

Bachelor of nursing Sciences, College of Nursing, Qassim University, KSA

Abstract---Background: Premenstrual syndrome (PMS) is considered as a cyclic late luteal phase disorder of the menstrual period in which affected women daily living activities and their quality of life which recognized as a series psychological and physical indicators such as grief, anxiety, psychological disturbances, decreased daily living activities, fatigue, altered dietary habits, and sleep pattern disturbances. Aim: to identify health beliefs and coping strategies regarding Premenstrual syndrome among health college students at Qassim University .Methods: A cross-sectional descriptive research design was used for carried out this study on Convenience sampling from all available students at the healthy colleges aged 18-25 years old from 2 nd to 4 th levels (239) female students from Medicine, Nursing, Pharmacy Applied medical sciences Medical rehabilitation and Dentistry at Oassim university. The data was collected by using 3 self-administered tools to collect data as follows; First tool: includes socio-demographic data contained 11 questions; Second tool: it measures the health beliefs of premenstrual syndrome contained 25 questions; Third tool is to measures coping strategies for premenstrual syndrome it contained 33 questions. Results: revealed that there are a statistically significant relation was found between student's health beliefs and their coping strategies level with Ps= (0.000). Also, there are a statistically significant relation was

found between student's sociodemographic data and their coping strategies level mainly in items related to living with and academic levels with ps= (0.001, 0.002) respectively. Conclusion: More than two-third of students has a good coping strategies regarding Premenstrual Syndrome (PMS) and health beliefs especially nutritional aspects & exercises. Additionally, There are a statistically significance relation between student's health beliefs and their coping strategies level while a highly statistically significance relation were found between student's sociodemographic data and their coping strategies level mainly in items related to living with and academic levels. Recommendations: Further research studies should be undertaken on the effect of nutritional support and relaxation exercises for women on severity of Premenstrual Syndrome (PMS) on large sample size to generalize the result of study to improve women beliefs and coping strategies regarding Premenstrual Syndrome (PMS)

Keywords---health beliefs, coping strategies, premenstrual syndrome, health college students.

Introduction

Premenstrual syndrome (PMS) is considered as a cyclic late luteal phase disorder of the menstrual period in which affected women daily living activities and their quality of life (Hashim, 2019). Conversely, the PMS is recognized as a series psychological and physical indicators such as grief, anxiety, psychological disturbances, decreased daily living activities, fatigue, altered dietary habits, and sleep pattern disturbances. (Maleki-Saghooni, 2018). Premenstrual syndrome (PMS) is a significant problem between women. A weak and negative relationship was found between PMS and comfort level which occurrence of menarche before the age of 13, the presence of chronic disease, dysmenorrhea, excessive salt use, and coffee consumption increases the possibility of Premenstrual syndrome. Various factors produce the incidence of PMS. So that, Interventional studies are required to diminish the risk factors for PMS that produce major impact on the women's health or its risk factors. (Gurkan & Bilgili .,2022).

Statistically, various a menstrual problems as irregular menstrual symptoms (27%), amenorrhea (9.2%), menorrhagia (3.4%), dysmenorrhea (89.7%), and premenstrual symptoms (46.7%). In 39 percent of students, high perceived pressure (HPS) were found. There was a significant positive association between perceived stress and menstrual problems. Students with elevated observed pressure recounted amenorrhea, dysmenorrhea and premenstrual syndrome (*Rafique and Sheikhb., 2018*). While in China menstrual symptoms calculated as 82 % of students, 37 % in Ethiopia, 39.9 % in Taiwan, 39.4 %, 56.9 % in Iran, 65 % in Egypt, 79 % in Japan, 80% in Pakistan and 89.5% in South Korea. The most frequently symptoms assigned with premenstrual syndrome include psychological and physical symptoms as; The psychological symptoms include: anger or irritability, changed life style and the physical symptoms include; abdominal discomfort, headache, and breast tenderness. (*Gudrun.,2017*)

The health belief model-based education for coping with premenstrual syndrome reduced the premenstrual symptoms and improved the quality of life. Nevertheless, the mixture of education and acupressure diminished the severity of premenstrual symptoms. Consequently, women's health nurses may include health belief model-based education for compliance with premenstrual syndrome into nursing care for protecting reproductive health to adapting with PMS (*Kucukkelepce et al.*,2021). As well, embracing preventive behaviors of premenstrual syndrome deliberated as the vital measure to prevent and control. Allowing for some variables as attitude, structure, implementation, and evaluation of health education and promotion strategies using theories and models of behavior change are important issues. (*Rafsanjani et al.*,2021)

Likewise, the females in the Islamic counties have their strategies for own community culture-acquired, health beliefs, behaviors to alleviate then menstrual and premenstrual symptoms. These strategies of coping and adaptation include consumption pattern of proper healthy foods increased intake of vegetables, fruits, use vitamins, analgesics and use warm showers (*Hashim et al., 2019*). In addition to, the syndrome related to menstruation are the extreme gynecologic illnesses. Premenstrual syndrome (PMS) represents as a public problem among females from all age groups due to numerous factors. It can decline their quality of life and social life (*Salem et al.,2020*) . Thus, There are a various coping strategies that women could be used to decrease their discomfort including the using of a heating pad, rest, herbal drinks, exercise and some medications (*Abdelmoty et el.,2015*).

Research Significance

The occurrence of confident menstrual disorders among women in KSA revealed as 91% for irregular menstruation (27%), amenorrhea (9.2%), menorrhagia (3.4%), dysmenorrhea (89.7%), and premenstrual symptoms (46.7%) (*Rafique and Al-Sheikhb.*, 2018).

Aims of the Study

To identify health beliefs and coping strategies regarding Premenstrual syndrome among health college students at Qassim University.

Research questions

- 1. What are the health beliefs of premenstrual syndrome among health college students at Qassim University?
- 2. What are the coping strategies of premenstrual syndrome among health college students at Qassim University? 3-Is there a relationship between health beliefs and coping strategies of premenstrual syndrome among health college students at Qassim University?

Conceptual Model for Health Belief

The Health Belief Model (HBM) layover as one of the nearly all comprehensively distinguished conceptual frameworks for understanding health attitude. The HBM

involves four factors that influence the likelihood of preventive health behavior: perceived susceptibility; seriousness; benefits and barriers ($Subramanian\ et\ al.$, 2013). Therefore, the constitutions of the HBM model include perceived severity, susceptibility, benefits, and barriers, modifying variables, prompts to action, and self efficacy (Tan., 2016).

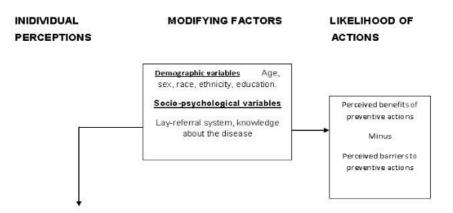


Figure 1.1: Conceptual framework of the Health Belief Model (HBM)

Source: Glanz, Rimer and Lewis 2002:52

Subjects and Methods

A cross-sectional descriptive research design was used for carried out this study on Convenience sampling from all available students at the healthy colleges aged 18-25 years old from 2 nd to 4 th levels (239) female students from Medicine, Nursing, Pharmacy Applied medical sciences Medical rehabilitation and Dentistry at Qassim university. The data was collected by using 3 self-administered tools to collect data as follows; First tool: Includes socio-demographic data contained 11 questions as age, weight, living status and marital status, etc.; Second tool: It measures the health beliefs of premenstrual syndrome adapted from Hamilton, 1998 after some modifications it contained 25 questions, as only Arab women experience premenstrual syndrome, women with premenstrual syndrome have mood swings in the week before their period, women with premenstrual syndrome gain weight in the week before their period, women with PMS suffer great deal physically and premenstrual syndrome is related to hormonal imbalance, etc.; Third tool is to measures adaptation strategies for premenstrual syndrome it contained 33 questions adapted from Muhib., 2017 ranged as the condition are in during premenstrual syndrome (9) questions, self-care (11) questions, factors that lead to adaptation to premenstrual syndrome (9) questions. A pilot study will be carried out 10% of students to test the clarity of questions and to estimate the time required for using the tools and to determine the time needed to fill the tool. Students included in the pilot study excluded from the study sample. The tools will be tested for their content validity by a jury of three experts in the Medical surgical nursing Pediatrics, Psychiatry & Mental health nursing professors as expertise in Qassim University. The required modifications were carried out accordingly. Study participants were individually participated after informed them that their participation was voluntary and they could withdraw at any time without consequences. The participants were assured that their responses were treated confidentially through the use of strict coding system. Data was collected and entered into a database file. Statistical analysis was performed using the SPSS 20 computer software statistical package. Data was described by summary tables and figures, Chi-2 was used to test the association between two qualitative variables and t test were used to compare between two or more proportion and person test for correlation coefficient between variables. Statistical significance was considered at P-value <0.05 and highly significance at P-value <0.00.

Results

Table (1): Illustrates a total of 435 students who participated in the study, slightly more than half (56.1%) of the students between 19-21 years old followed by (95%) of them single. Additionally, the majority of them (93.3%) living with their family, more than one quarter of students (35.1%) from Nursing College and (41.8%) from fourth year level. Table (2): Shows nearly half of studied student (41.8) strongly disagree regarding Only Arab women experience PMS, (50.2%) for Women with PMS should not hold executive positions, while, (41%)of them disagree for Women who have PMS are more likely to be married than not and slightly below half of them (45.4%) perceived sometimes Women with PMS make irrational decisions, (43.9%) agree for PMS is related to hormonal imbalance, (47.7%) strongly agree for the item related to women with PMS are irritable in the week before their period

As indicated in Table (3), below half of studied student (41.2) most of time using coping strategy regarding PMS as avoid cold or soft drinks and (31.5%, 30%) Separated myself from others and irritable toward others respectively. (31.8%) of them often irritable toward others, (30.1%) take time to focus on my own needs. while occasionally (38.9%) of them cry . (32.2, 34.7, 30.1) of them used occasionally coping strategy as take time to focus on my own needs, make more of an effort to eat healthy food, eat less/avoid sour food respectively. on the other hand, seldom used coping strategies as Abused others (verbally or/and physically), vent my feelings through emotional outbursts, focus less on the needs of others and eat less sugary foods (30.1, 28, 28.5, 30.1%) respectively. Table 4: describes that there are a statistically significant relation was found between student's health beliefs and their coping strategies level with Ps= (0.000) Table 5: Shows that there are a statistically significant relation was found between student's sociodemographic data and their coping strategies level mainly in items related to living with and academic levels with ps= (0.001, 0.002) respectively

Figure 1: shows that more than half of student's (59.4 %) acquired their information regarding PMS from social channels while the minority of them (4.6%) acquired their information from friends

Table 1. Distribution of study participants according to their Socio demographic data (n= 239)

Socio demographic data	No	%
Age groups (years)		
19-21	134	56.1
22-23	81	33.9
24-25	24	10.0
Marital status		
Single	227	95.0
Married	12	5.0
Living with:		
Family	223	93.3
Friends	2	.8
Alone	4	1.7
Others	10	4.2
College:		
Medicine	31	13.0
Nursing	84	35.1
Pharmacy	61	25.5
Applied medical sciences	28	11.7
Medical rehabilitation	15	6.3
Dentistry	20	8.4
Academic level:		
2st year	74	31.0
3st year	65	27.2
4st year	100	41.8

Table 2. Ranking distribution of health Beliefs regarding Premenstrual Syndrome (n= 239)

S N	Statements	Strongly agree		Agree		Sometime s		Disagree		Strongly disagree		Mea n	SD*
		No ·	%	No ·	%	No.	%	No ·	%	No ·	%	Mea n	SD.
.1	Only Arab women experience PMS	3	1.3	11	4.6	28	11.7	97	40.	100	41.	1.83	.898
									6		8		
	Women who say they have PMS are just trying to avoid their responsibilities at home or work		3.3	19	7.9	75	31.4	77	32. 2	60	25. 1	2.32	1.04 2
	Women with PMS feel anxious in the week before their period		36. 8	91	38. 1	47	19.7	11	4.6	2	.8	4.05	.908
.4	Women with PMS gain	22	9.2	51	21.	90	37.7	72	30.	4	1.7	3.06	.975

·		ı	1	1	1_	1		1	T ₂	1		1	1
	weight in the week before period				3				1				
.5	Women with PMS feel depressed in the week before their period	82	34. 5	80	33. 6	61	25.6	15	6.3	-	-	3.96	.925
.6	Women with PMS are irritable in the week before their period	114	47. 7	86	36. 0	31	13.0	6	2.5	2	.8	4.27	.843
.7	Women with PMS get cramps in the week before their period		18. 0	57	23. 8	92	38.5	39	16. 3	8	3.3	3.37	1.06 0
.8	Women with PMS suffer a great deal physically		25. 2	91	38. 2	68	28.6	18	7.6	1	.4	3.80	.918
.9	hormonal imbalance	108	45. 2	105	43. 9	20	8.4	4	1.7	2	.8	4.31	.764
.11	Stress is a major cause of PMS		32. 2	93	38. 9	49	20.5	20	8.4	-	-	3.95	.93
.11	Women with PMS should not hold executive positions	12	5.0	7	2.9	24	10.0	76	31. 8	120	50. 2	1.81	1.07
.12	It is wrong for women to use PMS as an excuse for bad behavior	76	31. 8	81	33. 9	55	23.0	21	8.8	6	2.5	3.84	1.05
.13	Most people were not aware of PMS	108	45. 2	98	41. 0	20	8.4	11	4.6	2	.8	4.25	.857
.14	Women with PMS should be allowed disability pension	62	25. 9	58	24. 3	44	18.4	64	26. 8	11	4.6	3.40	1.26
.15	Women with PMS suffer a great deal emotionally	123	51. 5	90	37. 7	23	9.6	3	1.3	-	-	4.39	.71
.16	Women who have PMS are more likely to be married than not	7	2.9	30	12. 6	72	30.1	98	41. 0	32	13. 4	2.51	.97
.17	Women who work inside the home are more likely to experience PMS than women who work outside the home	14	5.9	33	13. 8	72	30.1	89	37. 2	31	13. 0	2.62	1.01
.18	Women who have PMS should be allowed scheduled monthly time off from work	68	28. 5	72	30. 1	51	21.3	35	14. 6	13	5.4	3.62	1.20
.19	Women who have children are more likely to experience PMS than women who do not have children	10	4.2	27	11. 3	83	34.7	89	37. 2	30	12. 6	2.57	.99

.21	Women with PMS suffer	108	45.	104	43.	23	9.6	3	1.3	1	.4	4.32	.73
	a great deal		2		5								
	psychologically												
.21	Women with PMS make	15	6.3	37	15.	108	45.4	51	21.	27	11.	2.84	1.03
	irrational decisions				5				4		3		
.22	Women who say they	22	9.2	35	14.	80	33.5	69	28.	33	13.	2.77	1.14
	have PMS are just trying				6				9		8		
	to avoid dealing directly												
	with the "real" stresses												
	in their lives												

^{*} SD: Standard deviation -SA= Strongly agree, A= Agree, S= Sometimes, D=Disagree

Table 3. Distribution of student's coping strategies regarding PMS (n= 239)

SN	Statements	Most the ti	the time		n	Occasi	ionall y			Neve	r
		No	%	No	%	No.	%	No	%	No	%
.1	Cry	37	15.5	57	23.8	93	38.9	37	15.5	15	6.3
.2	Abused others (verbally or/and physically)	14	5.9	29	12.1	71	29.7	72	30.1	53	22.2
.3	Abused self	37	15.5	30	12.6	68	28.5	49	20.5	55	23.0
.4	Was irritable toward others	74	31.0	76	31.8	66	27.6	19	7.9	4	1.7
.5	Separated myself from others	73	30.5	61	25.5	58	24.3	30	12.6	17	7.1
.6	I occupy myself with things I enjoy	60	25.1	65	27.2	67	28.0	29	12.1	18	7.5
.7	I vent my feelings through emotional outbursts	24	10.0	32	13.4	50	20.9	67	28.0	66	27.6
.8	I focus less on the needs of others	22	9.2	26	10.9	74	31.0	68	28.5	49	20.5
.9	I take time to focus on my own needs	42	17.6	72	30.1	77	32.2	36	15.1	12	5.0
.11	I take medications for my physical complaints	60	25.1	41	17.2	27	11.3	54	22.6	57	23.8
.11	I avoid certain foods. As, fast food	36	15.1	48	20.1	60	25.1	51	21.3	44	18.4
.12	I make more of an effort to eat healthy food	46	19.2	49	20.5	83	34.7	37	15.5	24	10.0
.13	I eat less sugary foods	27	11.3	25	10.5	58	24.3	72	30.1	57	23.8
.14	I avoid cold or soft drinks	98	41.2	39	16.4	40	16.8	30	12.6	31	13.0
.15	I eat less/avoid sour food	24	10.0	26	10.9	72	30.1	51	21.3	66	27.6

 $^{^{\}ast}~$ SD: Standard deviation –M= Most of the time, O= Often, Occ= Occasionally, S= seldom , N=Never

Figure 1: Distribution of information sources regarding premenstrual syndrome as students

perceived		

Table 5: Pearson correlation between total scores of health beliefs with adaptation and coping strategies of premenstrual syndrome

	Health beliefs	P value
Copying strategies	.680	.000**

Table (6): Relation between student's coping strategies levels and their sociodemographic data MC: Monte Carlo \Box^2 : Chi square test

Q	Sociodemographic data	Coping	strategy	levels (r	n = 239)			\mathbf{x}^2	р
		Low < 50	Low <50%		te	High ≥7			
		(n = 69)		50 - <7	5%	(n = 40)	(n = 40)		
				(n = 130)	1		_		
		No.	%	No.	%	No.	%		
1	Age groups (years)								
	19-21	47	68.11	89	68.46	30	75	4.156	0.125
	22-23	12	17.39	12	9	10	25		
	24-25	10	14.49	29	22.3	0	0		
	Marital status								
	Single	14	20.28	92	70.7	12	30	0.542	^{мс} р= 0.826
2	Married	55	79.71	38	29.2	28	70		
	Living with:				27.491*	< 0.001			
	Family	14	20.2	20	15.3	7	17.5		
	Friends	20	28.9	39	30	3	7		
	Alone	17	24.36	50	38.4	12	30		
	Others	18	26.08	21	16.15	18	45		
3	College:								
	Medicine	23	33.3	10	7.6	18	45	2.962	MCp=
	Nursing	12	17.39	15	11.53	1	2	0.830	
	Pharmacy	9	13.04	17	13.07	9	22.5		
	Applied medical sciences	4	5	10	7.6	2	5		
	Medical rehabilitation	10	14.49	20	15.3	10	25		

	Dentistry	11	15.9	58	44.61	25	62.5		
5	Academic level:								
	2st year	6	8	33	25.38	11	27.5	16.891 *	0.002*
	3st year	30	43.4	50	38.4	10	25		
	4st year	33	47.8	47	36.15	19	47.5		

Discussion

Premenstrual syndrome (PMS) is considered as a arrangement of both somatic and affective manifestations previously to the incidence of menstruation and solving with the onset of menstruation or within few days of menstruation. (*Mohib et al.*,2018) . Concerning sociodemographic characteristics, the current study revealed that slightly more than half of the students between 19-21 years old followed by the majority of them were single and living with their family, more than one quarter of students from Nursing College and (41.8%) from fourth year level.

Regarding student's perception of Premenstrual syndrome (PMS), the current study revealed that nearly half of studied student strongly disagree regarding Only Arab women experience PMS, half of women with PMS should not hold executive positions, while, below half of them disagree for Women who have PMS are more likely to be married, slightly below half of them and perceived sometimes Women with PMS make irrational decisions, agree for PMS is related to hormonal imbalance, and strongly agree for the item related to women with PMS are irritable in the week before their period. These finding goes in the same way with Hashim et al., 2019 from kingdom Saudi Arabia who documented that the flow rate of suffering premenstrual syndrome which recognized highly among female university students, and adversely affects academic achievements and healthy life style which the prevalence of premenstrual syndrome among female university students differs between countries In Pakistan, Mohib et al., 2018 emphasized on occurrence of physical symptoms associated with premenstrual syndrome beside anxiety, stress, and feelings of depression. On the other hands, Saglam et al., 2020 reported that Symptoms of premenstrual syndrome can range from mild to moderate to severe. These symptoms may include changes in appetite, weight gain, abdominal pain, back pain, low back pain, headache, swelling and tenderness in the breasts, nausea, constipation, anxiety, irritability, anger, fatigue, restlessness, mood swings and crying.

In the United Arab Emirates (UAE). *Hashim etal.*,2019 refers to a significant link between the severity of PMS and nutritional habits and lifestyle factors while fruit consumption was found to be defensive PMS. Hence, planning educational programs should be bespoke to increase awareness regarding the preventive dietary and lifestyle habits and risky behaviors which influences PMS symptoms among female university students is defensible. Nevertheless, the higher prevalence of PMS among university students in health-related courses and its impact on their quality of life and suggest the benefits of educational applies that increased women awareness regarding this syndrome which enhanced student's quality of life (*Fernanda Figueira et al.*,2019)

Regarding Coping strategies , below half of studied student spend most of time using coping strategy regarding PMS as avoid cold or soft drinks , separated myself from others and irritable toward others , often irritable toward others, take time to focus on my own needs. While occasionally of them cry, used occasionally coping strategy as take time to focus on my own needs, make more of an effort to eat healthy food, eat less/avoid sour food. On the other hand , seldom used coping strategies as Abused others (verbally or/and physically) , emotional outbursts, focus less on the needs of others and eat less sugary foods . These finding goes in the same way with *Fernández et al., 2019* who elucidated on that the majority of PMS cases were more vulnerable to present high coping scores than controls. And arrange coping strategies in two extensive patterns: "adaptive coping" which includes active coping, planning, positive reframing, and acceptance, emotional support; and "dysfunctional coping" which includes denial, behavioral disengagement. 11

Concerning health beliefs regarding PMS, the current study revealed that there are a statistically significant relation was found between student's health beliefs and their coping strategies level . This finding goes in the same way with AyazaAlkaya et al.,2020 who recommended that HBM-based health education was effective for compliance with PMS to encourage the students for life style changes, and to recognize the difficulties and the benefits perceived about PMS. In Tahran , Khalilipour & Panahi.,2017 stressed on the importance of education on the hypothesis health belief model for the preventive behaviors of premenstrual syndrome and can be used to prevent and diminish the manifestations of premenstrual syndrome which A premenstrual syndrome is a sequence of physical, psychological, and behavioral symptoms that arise and affects both the individual and the family. Likewise, In Pakistan , Mohib et al.,2018 , It is no shock that PMS causes significant effects not only on women's normal daily routines but also their occupational and social life.

Recently, Amjadian et al., 2022 concluded that resulting from the low implementation of preventive attitude among students with lower income families, students with fewer physical activity and students with mothers with lower levels of education which needs more attention to those students in designing educational programs to support the prevention of premenstrual syndrome. Regarding the relationship between coping strategies and sociodemographic characteristics, the current study revealed that there are a statistically significant relation was found between student's sociodemographic data and their coping strategies level mainly in items related to living with and academic levels. In addition to, more than half of student's acquired their information regarding PMS from social channels while the minority of them acquired their information from friends. These finding goes in the same way with Ussher & Perz., 2017 who frazzled on self-monitoring which effective in the decline of premenstrual symptoms, as a result of increased awareness of the relationship between moods and stressful conditions across the menstrual cycle. On the other hand, The flow rate of suffering premenstrual syndrome is considered as a high among female university students, and adversely impact their healthy life style. (Hashim et al., 2019).

In Malaysia , *Hasim & Khaiyom ., 2019* high pointed on Premenstrual Dysphoric Disorder (PMDD) which considered as a recently combination of psychological and physical symptoms that begin a week before menstruation, diminish during menstruation, and dissolve after it ends. This disorder affects the life and productivity of between 3% and 8% of women in Western countries. In Etawah , *Kanti et al.,2020* focused on dysmenorrhea and PMS which known as the most common menstrual abnormalities. Drug was being taken mostly for dysmenorrhea . Furthermore, *Maity etal.,2022* added that positive measures by medical educators and stakeholders are essential for an accepting educational environment which will diminish the gender discrepancy in academic satisfaction and professional life.

In Iran , Farrokh-Eslamlou.,2015 found that PMS is common among medical students and this syndrome adversely affects some domains of the quality of life. So, enhancing the quality of female life among medical students requires both some interventions related to the PMS and also other interventions not related to PMS. Otherwise , Weighty menstrual bleeding (HMB) is extreme menstrual blood loss that inhibits with women's quality of life, nevertheless of the amount of blood loss which treatments includes both medical (hormonal or non-hormonal) or surgical with various effectiveness, acceptability, costs and side effects depend on the woman's age, the presence of other symptoms, and her personal outlooks and preferences. (Rodriguez et al., 2022)

Conclusion

More than two-third of students has a good coping strategies regarding Premenstrual Syndrome (PMS) and health beliefs especially nutritional aspects & exercises. Additionally, There are a statistically significance relation between student's health beliefs and their coping strategies level while a highly statistically significance relation were found between student's sociodemographic data and their coping strategies level mainly in items related to living with and academic levels.

Recommendations

Increased awareness regarding Premenstrual Syndrome (PMS) and proper actions in this period.

- 1. Further research studies should be undertaken on the effect of nutritional support and relaxation.
- 2. exercises for women on severity of Premenstrual Syndrome (PMS) on large sample size to generalize the result of study to improve women beliefs and coping strategies regarding Premenstrual Syndrome (PMS)Encourage implement instructional scheme to help women in the coping strategies of Premenstrual.
- 3. Syndrome (PMS) The health institutions should conducted programs for women on proper actions as a strategies of .
- 4. increased health beliefs regarding Premenstrual Syndrome (PMS)

Acknowledgements

The authors thank Health Colleges at Qassim University, Saudi Arabia for their assistance and support during the data collection process, as well as the students who volunteered to take part in the study.

Financial support and sponsorship

This research did not obtain any specific grant from funding supports in the commercial, public, or not -for-profit sectors

Conflicts of interest

No conflict of interest in the current study was found.

References

- Al-Batanony, M. A., & AL-Nohair, S. F. (2014). Prevalence of premenstrual syndrome and its impact on quality of life among University Medical Students, Al Qassim University, KSA. Public Health Res, 4(1), 1-6.
- Amjadian, M., Anbari, M., Amini, R., Darestani, M. K., Dehghankar, L., & Panahi, R. (2022). Studying the factors associated with Premenstrual syndrome prevention among pre-university students in Tehran. *Journal of Preventive Medicine and Hygiene*, 63(1), E6.
- Associated Factors and Comfort Level/Universite Ogrencilerinde Premenstruel Sendrom Prevelansi, Iliskili Faktorler ve Konfor Duzeyi. *Bezmialem Science*, 10(1), 44-53.
- Ayaz_Alkaya, S., Yaman Sözbir, Ş., & Terzi, H. (2020). The effect of Health Belief Model based health education programme on coping with premenstrual syndrome: a randomised controlled trial. International Journal of Nursing Practice, 26(2), e12816.
- binti Hasim, S. I. (2019). Adaptation and validation of the Daily Record of Severity of Problems (DRSP) among undergraduate students (Master's thesis, Kuala Lumpur: International Islamic University Malaysia, 2019.)
- Crow, E. M., & Jeannot, E. (2017). Premenstrual syndrome: Symptomatic and diagnosed prevalence, dualistic treatment approach—A cross-sectional study in Ukraine. International journal of preventive medicine, 8(1),66.
- E. A. I. E. (2019). Premenstrual syndrome is associated with dietary and lifestyle behaviors among university students: A cross-sectional study from Sharjah, UAE. *Nutrients*, 11(8), 1939.
- Farrokh-Eslamlou, H., Oshnouei, S., Heshmatian, B., & Akbari, E. (2015). Premenstrual syndrome and quality of life in Iranian medical students. *Sexual & Reproductive Healthcare*, 6(1), 23-27.
- Gurkan, D. Y., & Bilgili, N. (2022). Prevalence of Premenstrual Syndrome Among University Students:
- Hamilton, J. A. (1998). University women's experience with and perceptions of premenstrual syndrome
- Hashim, M. S., Obaideen, A. A., Jahrami, H. A., Radwan, H., Hamad, H. J., Owais, A. A., ... & Faris, M.

- Hasim, S. I., & Khaiyom, J. H. A. (2019). Premenstrual Dysphoric Disorder: Reviews of Studies in Malaysia, Measures Used, and Validation of the Daily Record of Severity of Problems. *Mal J Med Health Sci*, 15(2), 130-136.
- Kanti , V., Verma , V., & Singh , N. P. (2020). Study of Menstrual Abnormalities and its Association with Demographic Factors among Female Medical Students. *Journal of Clinical & Diagnostic Research*, 14(8).
- Khalilipour, M., & Panahi, R. (2017). Effect of education on promoting preventive behaviors of premenstrual syndrome in female adolecents: Health belief model application. *Journal of Education and Community*Health, 4(2), 44-54.
- Kucukkelepce, D. S., Unver, H., Nacar, G., & Tashan, S. T. (2021). The effects of acupressure and yoga for coping with premenstrual syndromes on premenstrual symptoms and quality of life. *Complementary Therapies in Clinical Practice*, 42, 101282.
- Lotfipour Rafsanjani, S. S., Maesomi, M., & Nasirzadeh, M. (2021). Knowledge, Attitude and Beliefs of
- Maity, S., Wray, J., Coffin, T., Nath, R., Nauhria, S., Sah, R., ... & Nauhria, S. (2022). Academic and Social Impact of Menstrual Disturbances in Female Medical Students: A Systematic Review and Meta Analysis. Frontiers in medicine, 9.
- Maleki-Saghooni, N., Karimi, F. Z., Moghadam, Z. B., & Najmabadi, K. M. (2018). The effectiveness and safety of Iranian herbal medicines for treatment of premenstrual syndrome: A systematic review. Avicenna journal of phytomedicine, 8(2), 96.
- Rafsanjan Female Students Regarding Preventive Behaviors of Premenstrual Syndrome: Application of Health Belief Model. *Qom University of Medical Sciences Journal*, 15(3), 156-165.
- Rodriguez, M. B., Dias, S., Jordan, V., Lethaby, A., Lensen, S. F., Wise, M. R., ... & Farquhar, C. (2022). Interventions for heavy menstrual bleeding; overview of Cochrane reviews and network meta analysis. *Cochrane Database of Systematic Reviews*, (5).
- Salem, I. M. W., Alsamti, M. Y., & Murad, M. A. (2020). Predictors of Premenstrual Syndrome among Female Students at Governmental Secondary Schools in Jeddah, Saudi Arabia: A Cross-sectional Study. *The Egyptian Journal of Hospital Medicine*, 78(2), 337-347.
- Subramanian, P., Oranye, N. O., Masri, A. M., Taib, N. A., & Ahmad, N. (2013). Breast cancer knowledge and screening behaviour among women with a positive family history: a cross sectional study. Asian Pacific journal of cancer prevention, 14(11), 6783-6790.
- Tan, A. M. (2016). Efficacy of a workplace osteoporosis prevention intervention in premenopausal women with sedentary occupations: a cluster randomised trial (Doctoral dissertation).