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RESEARCH PAPER

Self –Care Measures Regarding Premenstrual Syndrome among Female Nursing Students

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Abstract: Premenstrual syndrome (PMS) is a common serious problem characterized by a set of physical, emotional, and behavioral symptoms that affecting a woman's health, performance, and lifestyle.
Aim: to assess self –care measures regarding premenstrual syndrome among female nursing students.
Method: descriptive design was used. A convenient sample of 210 female nursing students. Five tools were developed for data collection name lysocio-demographic characteristics sheet, anthropometric measurement assessment sheet, menstrual assessment sheet, severity of premenstrual symptoms assessment sheet, and self-care measures assessment sheet.
Results: (87.1%) of the studied sample were experience premenstrual symptoms. 12.4%of the studied sample had severe mood swings. While only (9.5%) of the studied sample had severe fatigue. The minority of the subjects had correct dietary self- care which included decrease fat, decrease salt, decrease species and decrease caffeine (16.2%, 6%, 14%, and 4.20% respectively).
Conclusion: Premenstrual Syndrome is considered the most common gynecological and psychological problem among female nursing students. Correct self-care measures about premenstrual syndrome insufficient among the female nursing students.
Recommendations: Establish education program for all female students for increasing their knowledge, Encouraging young female to changing lifestyle interventions, Incorporation of exercises programs into the female secondary school & university programs.

Key words: PMS, self- care Measures, female nursing students

INTRODUCTION

Self-care refers to those activities an individual performs independently throughout life to promote and maintain personal wellbeing**[1]**.Self-care deficit is the relationship between self-care agency and therapeutic self-care demands of individual with capabilities of self-care. Therefore of existents limitation individual are not equal to meet some or all the components of therapeutic self-care deficit. Inabilities to meet any of the 3 categories of self-care requisite give rise to self-care deficits. Thus a self-care deficit is an ability to meet one's own therapeutic self-care demands and those actions which are necessary to maintain function and promote development. In the present study, self-care deficit area is the inability of the young female to identify premenstrual symptoms and practice measures for minimizing these symptoms. **[2]**

Menstruation is a normal physiological process experienced by all females characterized by a periodic discharge through the vagina, a bloody secretion containing tissue debris due to shedding of endometrium from the non-pregnant uterus. The average duration of menstruation is 4 to 5 days, and it recurs at approximately 28-days intervals throughout the reproductive life of non-pregnant women but there is several health problems associated with menstruation. One of the most common problems is premenstrual syndrome.**[3,4]**

Prevalence of PMS is variable. Prevalence as high as 75–85% is mentioned if one or several symptoms is considered, 10–15% if medical care is requested and 2–5% with social activities interruption. **[5]**

Premenstrual syndrome (PMS) is a common disorder among young aged womencharacterized by cyclic occurrence of a combination of distressing physical, psychological and behavioral changes in the luteal phase of the menstrual cycle and resolve promptly with the onset of menstrual flow. It is sufficient severity to result in deterioration of interpersonal relationships and/or interference with normal activities, which remit upon onset or immediately after menstruation, and not caused by any organic disease. Altered estrogen to progesterone ratio, decreased whole blood serotonin levels, pyridoxine deficiency, hypoglycemia, prostaglandins and failure to maintain opioid tonus have been implicated from time to time in the causation of premenstrual symptoms. **[6, 7]**While **[4]** stated that, causes of PMS remain enigmatic and the exact causes of PMS are not clearly understood but have been attributed to hormonal changes, neurotransmitters, prostaglandins, diet, drugs, and lifestyle.

Physical Symptoms of (PMS) are: breast tenderness or swelling; weight gain due to fluid retention; abdominal bloating; fatigue; dizziness; nausea and vomiting; acne or worsening of an existing skin disorders; muscle aches; pelvic heaviness; appetite change; constipation; headache and backache. The emotional symptoms are: insomnia; sadness; irritability; tension; anxiety; restlessness; loneliness and food cravings. There are also behavioral symptoms such

as: difficulty concentrating; forgetfulness and social avoidance. **[8]**

While the most common emotional and mood related symptoms of PMS include depression, irritability, crying, over sensitivity (hypersensitivity), and with alternating sadness and anger**.**Physical discomforts include abdominal cramps, fatigue, bloating, and breast tenderness (mastalgia), acne and weight gain. Behavioral symptoms include food cravings, poor concentration, social withdrawal, forgetfulness and decreased motivation. **[9]**

The severity of premenstrual symptoms varies widely from person to person. When premenstrual dysphoric disorder (PMDD), symptoms become severe they can interfere with daily life and cause severe disability. According to research, severe symptoms can affect work, school performance, and lead to problems/conflicts in interpersonal relation-ships. It has been found that mild to moderate symptoms can be relieved by various lifestyle changes. **[10]**

About 80% of women report mild symptoms, 20%-50% report moderate symptoms, and about 5% report severe symptoms for several days with impairment of functioning. Although severity of symptoms vary, individual with severe symptoms are prone to suffer with premenstrual dysphoric disorder (PMDD). In such patients, the symptoms are so severe that they interfere with daily life, cause disability and at times they are life threatening.It has been found that mild to moderate symptoms can be relieved by various lifestyle changes. However, severe symptoms often require more aggressive treatment that requires pharmacological intervention in addition to non-pharmacological treatments. **[11]**

Management of premenstrual syndrome in young aged women focus on pharmacological treatments for PMS in the form of hormonal interventions, antidepressants, high-dose estrogen as transdermal patches or subcutaneous implants, nonsteroidal anti-inflammatory drugs for severe degrees.Also positive coping techniques and life style modifications are often recommended for alleviated severity of physical and psychological symptoms of PMS especially among mild and moderate degrees in the form of yoga, exercises, with dietary changesthrough;supplements of vitamins (A, E, and B6); calcium; magnesium; multivitamin/mineral supplements. Dietary restrictions through (sodium restriction has been proposed to minimize bloating, fluid retention, and breast swelling and tenderness. Also caffeine restriction is recommended because of the association between caffeine and premenstrual irritability and insomnia. In addition to restriction ofsugar and increase consumption of complexcarbohydrates. **[4]**

Significant of the study:

PMS is particularly common problem in younger age group and, therefore represents significant public health problem. **[12]**Women in general and female in specific are not aware of their fundamental rights. Self-care practices are major determinants of morbidity and other complications among this age group. Also young females are going through many changes in her body specially related to menstruation. So that this study focus on assessing nursing students premenstrual symptoms, management and lifestyle interventions to relieve their discomfort and decreasing the severity symptoms of PMS.

Aim:

This study aimed to assess self –caremeasuresregarding premenstrual syndrome amongfemalenursing students'

Research Questions:

a. Are femalenursing students' self-care measures about premenstrual syndrome were correct?
b. Are the female nursingself - care practice sufficient to decrease severity of premenstrual syndrome?

METHODOLOGY

Research Design:

Descriptiveresearch design was used to assess self –care measures regarding premenstrual syndrome among female nursing students' **Setting:**The study was carried out at Faculty of Nursing and Applied Medical Sciences in Tabukcity at kingdom of Saudi Arabia.

a. Population: The study sample was comprised of two hundred and ten (210)nursing students who agree to participate for the study.All students who were present when the questionnaire was distributed for at a period from (first of September 2014 toJanuary 2015). Sample of femalenursing students aged 18 and over was selected. Inclusion criteria consisted of: student haveattained menarche, a menstrual cycle that lasts from 21 to 35 days with 2 to 6 days of flow and average blood loss of 20 to 60 ml(regular period for at least six previous months before),those who not suffering from chronic diseases and girls who not taking hormonal therapy or anti-depressants drugs.

b. Data collection tools: The tools of this study were consisting of five instruments to gather the required data for the study as the following:

a) Socio-Demographic Characteristics Sheet:

These sheets include socio-demographics characteristics of female nursing student such as name, age, marital status, academic level.

b) Anthropometric measurement assessment sheet:

Height and weight were obtained for each student. Height was taken by asking the student to stand in the front of the wall then a mark was taken then by using measuring tape the height was obtained in cm; on the other hand the weight was obtained by asking the student to remove her shoes then step on the weighing scale to measure her weight in kg then the Body Mass Index (BMI) was calculated by the following equation:

$$BMI = \frac{(Weight/\ kg)}{(Height/m)2}$$

c) Menstrual Assessment Sheet:

This includes age of menarche, duration of menstruation, amount of menstrual bleeding, interval of cycle, and regularity of the cycle.These three tools were structured by researcher.

d) Severity of premenstrual symptomsassessment sheet:

which was consisted of three major symptoms 16 items as physical symptoms, 7 items as emotional symptoms, and 3 items as behavioral: The physical symptoms include:(breast tenderness or swelling; weight gain due to fluid retention; abdominal bloating; fatigue; dizziness; nausea and vomiting; acne or worsening of an existing skin disorders; muscle aches; pelvic heaviness; appetite change; constipation; headache and backache). The emotional symptoms are: (insomnia; sadness; irritability; tension; anxiety; loneliness and food cravings). And behavioral symptoms such as: difficulty concentrating; forgetfulness and social avoidance.[8]Then modified and translated by researchers.

Scoring system for PMS severity: for examine the severity of the syndromes which categorized to 4 categorizes (from No symptoms to severe symptoms). No symptoms, Mild, Moderate, severe, respectively. 0 (Zero) indicates that the students are having no occurrence of a particular symptom, 1 (One) indicates that the symptom they experiencing are mild, that is they are present but they are not a problem to her, 2 (Two) indicates that the student consider her symptoms to be moderate in nature. They are experiencing them they are significant but tolerable, 3 (Three) indicates that the students' symptoms to be severe. They are more than just a little uncomfortable, may need to take medication or they are bothering the students to a significant degree, 4 (Four) indicates that at some time during this period they are partially or completely disabled. They are not able to work;the students have to stay at home possibly in bed.

Score is between 0-18 means the students do not have PMS.
Score is between 19-25 means the students have mild PMS.
Score is between 26-35 means the students have moderate PMS.
Score is more than 35 means the students have severe PMS

e) Self-care measures assessment sheet:

This sheet includes care for PMS, used medication, herbs,mind-body interaction, manipulative and body-based methods, dietary changes, vitamin supplementations. Also this sheet developed by researchers.

a. Procedure for Data Collection:

Data collected (assessment phase) for 3 days per week from 8 A.M to 12P.M, the implementation phase was done through interview with each female nursing student after arranging with her schedule by the researcher individually using study tools. The aim of the study was explained to give assurance of confidentiality of information offered, and to gain their maximum cooperation. Consent was obtained (orally). Each student given the tool to fill it. Then the researcher measures the weight and length for each student to calculate BMI; The interviewing questionnaire was filled by the students at the beginning of each session. Each student took about 10 minutes to answer this question (age, marital state, academic level). The second tool menstrual assessment sheet took 10 minutes to answer itsquestions. The third tool which severity of premenstrual symptoms took about 20 minutes to answer its questions; each symptom was categorized into 4 levels of severity. Ask each student previous at least one year prospective to fill these questions with details. First category took score 0 which mean no complaint, second category took score 1 which mean mild effect of this premenstrual symptom, third category took score 3 which mean moderate effect of this premenstrual symptom, fourth category took score 4 which mean sever effect of the symptom. No is feeling not at all bothersome, severe if this is the worst the student have ever felt or if the experience is the most bothersome. Moderate if bothersome enough to interfere with her daily function in some way, mild if only slightly bothersome, then ask students about which method they perform for relieving PMS (implementation phase).

A pilot study was conducted on 15 participants that were not used for the final study, in order to test the applicability of tools and clarity and simplicity of the included questions as well as to estimate the average time needed to fill in the sheets. Those who shared in the pilot study were excluded from the main study sample. Necessary modifications were carried out based on finding of pilot study to develop the final form of the tools.

b. Administrative Design: An official permission was obtained then informed consent was obtained from the female students who participate in this study.

c. Human Rights and Ethical Considerations: The subjects were chosen according to the criteria and they were interviewed after their informed consent was obtained to participate in the study. The researchers approached each student by giving her an overview of the study, explained the procedures and reassured the subjects that their privacy would be protected, and that any obtained information would be strictly confidential.

d. Limitation of the study: It was difficult to follow up the chosen females and continue more especially after many cycles of menstruation in some females.

e. Statistical Design: The collected data were coded for entry and analysis (SPSS) statistical software package version 17. Data were presented using descriptive statistics in the form of frequencies and percentage.

RESULTS

The results of the study will be presented in the following sequence:

Table (1): Socio demographic characteristics of the sample:

variable	Frequency	Percentage %
Age		
Less than 20**years**	16	7.6
20-22 **years**	181	86.2
23-24 **years**	13	6.2
Mean±Sd	**20.8143±1.07106**	
Marital status		
Single	179	85.2
Married	28	13.3
Divorced	3	1.4
Academic Level		
3 Level	125	59.5
4 Level	10	4.8
5 Level	35	16.7
6 Level	40	19
Total	**210**	**100**

Table (1) demonstrates socio- demographic characteristics of the sample; the mean age of studied sample was 20.8143 ±1.07106 years. Regarding marital status more than the 3 quarter (85.2%) of the sample was single. more than half (59.5%) of the studied sample recruited into third academic level.

Table (2) Anthropometric Measurements of the studiedsample:

Variable	Frequency	Percentage %
Weight		
Less than 40 kg	25	11.9
40-60 kg	162	77.1
61-75 kg	19	9
76-85 kg	3	1.4
More than 85 kg	1	.4
Mean±Sd	**49.7238±9.47610**	
Length		
Less than 150 cm	42	20
150-160 cm	144	68.6
161-170 cm	24	11.4
Mean±Sd	**1.5370±6.07357**	
BMI		
Underweight(less than18.5 **kg/m^2**)	55	26.2
Normal (healthy weight)(18.5-25 **kg/m^2**)	136	64.8
Overweight (more than 25-30 **kg/m^2**)	14	6.6
Obese (more than 30-35 **kg/m^2**)	5	2.4
Mean±Sd	**21.0127±3.62766**	

Table (2) shown anthropometric measurements of the studied sample; more than two third of the studied sample (77.1%) their weight ranged from40-60kg with the mean weight was(49.7238+9.47610)kg,while more than half of the studied sample(68.6%) their length ranged from150-160cm with mean + sd (1.5370+6.07357)cm. Also the body mass index(BMI) displayed that more than two thirds (64.8 %) of the students in the sample were normal weight. Also only 2.4% of the students in the sample were obese with the mean of BMI was (21+3.6).

Table(3): Distribution of the sample regarding to menstrual history:

Variable	Frequency	Percent%
Age of menarche		
9-12 years	80	38.1
13-16 years	126	60
More Than 16 years	4	1.9
Mean±Sd	**13.0476±1.146983**	
Duration Of Menses		
Less than 3 days	1	.5
3-6 days	179	85.2
More than 7 days	30	14.3
Amount		
Little	13	6.2
Normal	180	85.7
Heavy	17	8.1
Menstrual interval		
Less than24 days	48	22.9
25-29days	118	56.2
30-34 days	23	11
More than 35 days	21	10

Regularity Yes No	 140 70	 66.7 33.3
Total	**210**	**100**

Table (3) shows distribution of the studied sample according to their menstrual characteristics. Regarding to the amount of menstrual bleeding more than three quarter of the studied sample (85.7%) had normal amount of the menstrual bleeding. As regarding to duration of menstruation more than two third of the studied sample (85.2%) were from 3 to 6 days. sixty six point seven percent of the studied sample had regular menstruation with the mean age of menarche was13 +1.1years.

Table (4A): Severity of emotional and behavioral symptoms of premenstrual syndrome the sample:

	Severity of Symptoms N=210							
Symptoms	**No**		**Mild**		**Moderate**		**Severe**	
A-Emotional: Insomnia	85	40.5	69	32.9	35	16.7	21	10
Depression/sadness	97	46.2	61	29	30	14.3	22	10.5
Irritability	81	38.6	72	34.3	14	6.7	43	20.5
Tension	115	54.8	57	27.1	7	3.3	31	14.8
Anxiety	54	25.7	125	59.5	24	11.4	7	3.3
Mood swings	98	46.7	29	13.8	57	27.1	26	12.4
Loneliness (crying)	107	51	76	36.2	13	6.2	14	6.7
Food cravings	61	29	103	49	7	3.3	39	18.6
B-Behavioral symptoms :								
Difficulty concentrating	92	43.8	74	35.2	21	10	23	11
Forgetfulness	63	30	92	43.8	32	15.2	23	11
Social avoidance	119	56.7	59	28.1	28	13.3	4	1.9

Table (4A) Display severity of the emotional behavioral symptoms of premenstrual syndromes in the studied sample. 20.5% of the studied sample had severe degree of irritability and less than one quarter (1.9%) of the studied sample had severe degree of social avoidance.

Table (4B): Severity of physical symptoms of premenstrual syndrome in the sample: Continue

Symptoms	**Severity of Symptoms N=210**					
	Mild		**Moderate**		**Severe**	
C-Physical	**NO**	**%**	**NO**	**%**	**NO**	**%**
Breast tenderness or swelling	69	32.9	28	13.3	15	7.1
Weight gain	73	34.8	19	9	64	30.5
Abdominal bloating	85	40.5	74	35.2	24	11.4
Fatigue	64	30.5	23	11	20	9.5
Dizziness	79	37.6	20	9.5	9	4.3
Nausea and vomiting	72	34.3	49	23.3	23	11
Acne	51	24.3	36	17.1	28	13.1
Worsening of an existing skin disorders	75	35.7	23	11	18	8.6
Muscle aches	89	42.4	32	15.2	22	10.5
Pelvic heaviness	72	34.3	47	22.4	27	12.9
Appetite change	107	51	10	4.8	14	6.7
Constipation	71	33.8	31	14.8	42	20
Headache	73	34.8	20	9.5	17	8.1
Backache	104	49.5	46	21.9	33	15.7

Table (4B) Display severities of the physical symptoms of premenstrual syndromes in the studied sample. More thanone third (30.5%) of the studied sample had severe weight gain. While only (4.3%) of the studied sample had severedizziness.

Table 5: Total symptoms scores of premenstrual syndromein the sample:

Variable	No		Mild		Moderate		Severe		X2	p
	No	%	No	%	No	%	No	%		
Total symptoms scores of PMS	54	25.7	45	21.4	70	33.3	41	19.5	136.5	.000

Table 5 shows that symptoms scores of premenstrual syndrome in the sample. More than one third of the studied sample gained moderate symptoms' scores of the PMS. While less than one quarter (19.5%) gained severe scores with (X2=136, P=.000)

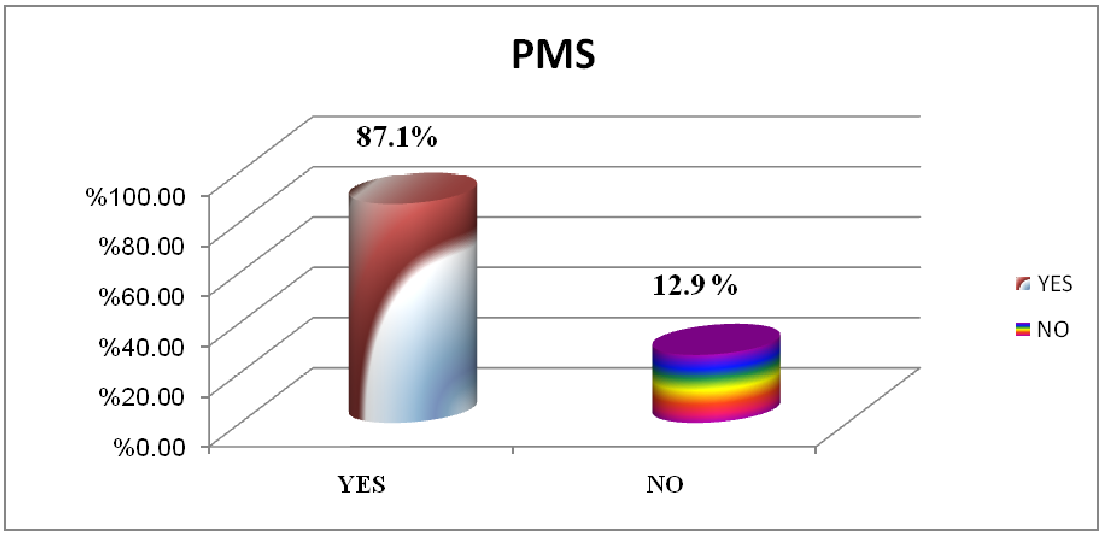

Figure (1): Distribution of the sample regarding presence of PMS symptoms:

Figure (1) Distribution of the sample regarding presence of PMS symptoms. This figure clarifies that (87.1%) of the studied sample were experience premenstrual symptoms. While only (12.9%) of the studied sample were not experience premenstrual symptoms.

Table(6): Distribution of the sample regarding use previous different methods to relieve PMS:

Variable	Frequency	Percent%	X2	P
Previous medical care for PMS			220.200	.000
Usually	171	81.4		
Sometimes	12	5.7		
Never	27	12.9		
What kind of treatment used			37.810	.000
Analgesic.	36	17.1		
Herbal.	83	39.5		
Combination of herbal& analgesics	64	30.5		

Table (6):shows Distribution of the sample regarding use previous different methods torelieve PMS; the highly percentage of the studied sample (81.4%) had usually received medical care for their premenstrual symptoms while (12.9%) of them never received any kind of medical care. About more than third of the studied sample (39.5 %) of the sample used herbs to reduce the premenstrual symptoms.

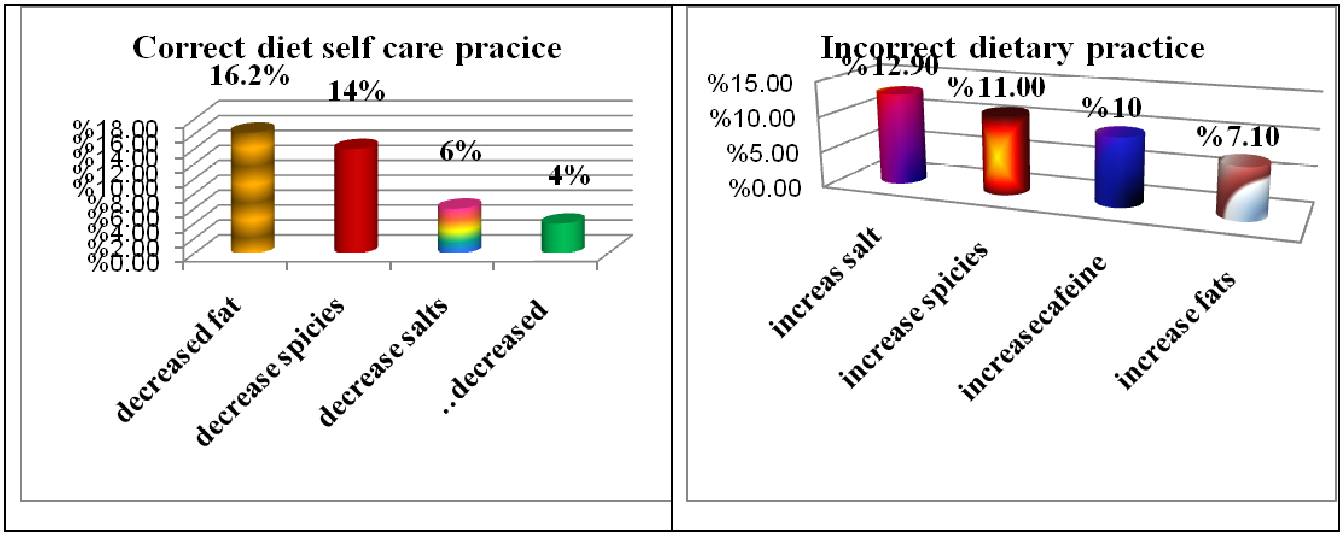

Figure 2: Distribution of the sample regarding correct dietary self-care practice of PMS symptoms:

Figure 3: Distribution of the sample regarding incorrect dietary self-care practice of PMS symptoms:

Figure (2) shows; the minority of the subjects their dietary self- care correctly which included decrease fat, decrease species, decrease salt, and decrease caffeine (16.2%, 14%, 6%, and 4% respectively).

While Figure (3) displays that incorrect dietary practice, 12.9% of the studied sample increased their salt intake, while 7.1% of them increased their fats.

Table 7: Distribution of the sample regardingself-care practice of PMS symptoms:

Variable	**Yes**		**No**		**X2-test**	**p**
Dietary Changes of PMS	**No**	**%**	**No**	**%**		
	132	**62.9**	**78**	**37.1**	**171.343**	**.000**
Supplementation of vitamins	**20**	**9.5**	**190**	**90.5**	**137.619**	**.000**
Vit. B	9	4.3				
Vit. E	5	2.4				
Ca	3	1.4				
Herbal	**146**	**69.5**	**64**	**30.5**	**32.019**	
Cinnamon	45	21.4				
Mint	47	22.4				
Ginger	42	20				
Fenugreek	3	1.4				
Green-tea	5	2.4				
Chamomile	4	1.9				
Mind-Body Interaction	**48**	**22.8**	**162**	**77.1**	**552.286**	**.000**
Yoga	0	0				
Hearing music	22	10.5				
Drawing	3	1.4				
Drawing and hearing Quran	12	5.7				
Hearing Quran	11	5.2				
Manipulative and Body-based Methods:	**182**	**86.7**	**28**	**13.3**	**196.057**	**.000**
Massage	15	7.1				
Exercises	20	9.5				
Warm shower	29	13.8				
Warm compress	9	4.3				
More than one method	109	51.9				

Table (7) shows;more than two thirds of the studied subjects (62.9%) practiced dietarychanges regardingPMS; while (37.1%) of the subjects were not practiced any type of management regarding PMS. Only (9.5%) of the studied subjects were use vitamins supplements as a PMS self-care measures; (4.3% use of vitamin B supplements; 2.4 % for Vitamin E supplement). Regarding herbs the percent of subjects more than two thirds of the subjects (69.5%) use herbs as Cinnamon21.4%then Ginger 20%, Mint22.4%,1.4% fenugreek,2.4 % Green tea , and at the last chamomile 1.9%. as regarding to Manipulative and Body-based Methods for relieving PMS,more than half of the studied subject(51.9%) practiced more than method for relieving PMS.

DISCUSSION

Premenstrual syndromes (PMS) is characterized by one or a number of a set of physical, behavioral and psychological symptoms that time, happens repetitively and in a cyclic pattern in association with the luteal phase of the menstrual cycle and the patient is symptom-free between two luteal phases. In modern times, a cluster of premenstrual symptoms has been variably referred to as premenstrual tension syndrome or premenstrual syndrome.**[13]** PMS are a serious problem that affect majority of women,nearly85-97% of women experience various somatic and affective disorders prior to menstruation that reflect upon women's health related quality of life**[14].**It is an accepted fact that menstruation is a normal physiological impact in each girl's life. Younger age period of the girl is crucial phase. Premenstrual syndrome is the most important reason by women to miss work, school or college. Sometime their symptoms are so severe that she needs medical care**. [15]**

Regarding to socio-demographic characteristics' of the studied sample, the present study shows that, the mean age of the studied sample was 20.8226 +1.05189 years old and (85.2%) of the sample was single,(table1). This resultcomes in agreement with **[15]** who mentioned that,majority 152 (61.28%) were of age group 21- 30 years.

Regarding to distribution of the studied sample according to their menstrual characteristics (table 3), the results of the present study demonstrated that the mean age of menarche was13 +1.5this isin agreement with the study conducted in Riyadh**[16]**who found that the mean age (13.1years). This results also, comes in agreement with **[17]** who mentioned that, the mean age at menarche was (13.6± 1.3) years. Whileregarding to the amount of menstrual bleeding this study reveals that more than three quarter of the studied sample (83.7%) had normal amount of the menstrual bleeding. As regarding to duration of menstruation more than two third of the studied sample (85.2%) were ranged from 3 to 6 days. sixty six point five percent of the studied sample had regular menstruation.

This study clears that the frequency of PMS was seen in more than half (83.1%)of the studied subjects' figure (1). This result agreeswith [**18]**who reported that the frequency of PMS was seen in 52.3%**.**Also,similarly various other studies have also shown that more than half of study subjects suffered from PMS**. [19,20,21]**

These results agree with the study which mentioned that the frequency of PMS was high in young girls from Pakistan. This difference could be due to the difference in general community and the present highly selective group of population or may be that medical and nursing students had more stressful life. Other available results from UAE, USA, France report incidence of PMS between 16.4% to 35%, while **[22]** reported very high prevalent figures of 75% and 88%respectively. **[23]**

Also **[24]** studied prevalence of PMS in medical students and found that 60.5% of the students suffered from PMS. **[25]** who found a prevalence of 55.3%.The prevalence of PMS was found to be 40.9% in urban school girls and 51.6% in rural school girls. These results are almost comparable to the above studies. Also, prevalence of PMS was found to be 63% in one of the study conducted in New Delhi. **[18]**

Numerous studies have indicated that a considerable portion of women of reproductive age suffer from menses-associated health problems such as premenstrual symptoms. Especially menstrual disorders are a common presentation by late adolescence. 75% of girls experience some problems associated with menstruation. In a population based study conducted in Brazil, prevalence of PMS among adolescents (15-19 years) was found to be 30% higher than in older women (40-49 years).**[26]**

The practice of healthier behavior like lifestyle modifications and self-care practices during PMS are important indicators of health and determinant of health especially during the reproductive age of a woman.**[27]**There-fore, promoting positive attitudes towards management of PMS among the young females is the need of the hour **[28]**, which concurs with the results of this study. Table 7 reveals that self-care practice during PMS includes:correct and incorrect dietary changes of PMS;Supplementation of vitamins (Vit. B, Vit. E, Ca) Herbal cinnamon, mint, ginger, fenugreek, green-tea, chamomile Mind-Body Interaction; (yoga, hearing music, drawing, and hearing Quran); Manipulative and Body-based Methods (massage , exercises, warm shower, warm compress, more than one method)

Socio-cultural influences and self-care practices of female. However, some girls have developed their own strategy to cope. Studies have shown that superstitions, illogical beliefs and misinterpretation are more common than accurate understanding of the process of menstruation, and self-care practices. **[29]**

Complementary and alternative medicine (CAM) can be described as those medical systems, practices, interventions, applications, theories, and claims that are currently not part of the dominant or conventional medical system **[30]**.In the current study about (61.3) % of the subjects used complementary and alternative medicine to manage symptoms of PMS. This result was in agreement with a study by **[31]**, he found that 91% of women had used at least one form of complementary therapy for the management of their premenstrual symptomatology although only 35% were

current users. The herbal was the most common method that the subjects. The four herbs used by the subjects in a descending percent were Cinnamon, Ginger, Mint, Green Tea, chamomile and fenugreek. These may be because traditionally use of herbs at Saudi so it become easy to use and most common available.

These study results in agreement with**[32]**who Studied "Herbal Remedy used by Rural Adolescent girls with Menstrual Disorders"which conducted from preparatory and secondary schools in rural village in El-behira governorate, Egypt. This study found that, 72.7% of the study subjects had used herbal remedy for treatment of premenstrual syndrome (PMS). The types of herbs used in management of PMS were fenugreek, peppermint and aniseed which were effective among almost all of the study subjects. Green tea, cinnamon and basil were moderately effective. The method that used mostly next to herb was prayer. Although the difference between pre and post intervention practice of the subjects regarding use of vitamin supplementation, yoga, and art and music was statistically significant but the percent of increase was not effective.

This currentstudy found that only (9.5%) of the studied subjects were use vitamins supplements. These study results may be due to the lake of students' knowledge about the importance of use vitamin supplements for managing PMS and come in accordance with a case –control Study conducted by **[33]**who discussing the " Dietary B vitamin intake and incident premenstrual syndrome" .They observed a significantly lower risk of PMS in women with high intakes of thiamine and riboflavin from food. In the current study the more than half of the subjects (62.9%) change their dietary practice. Only 16.2% reduced fat in their diet, while 4% decreased coffee intake, salt was decreased by 6% and species was reduced by 14% of the subjects.

CONCLUSION

Based on the result s of the present, it concluded that;Premenstrual Syndrome is considered the most common gynecological problem among young adult female nursing students' which effect on quality of life and females production. Correct self-care measures about premenstrual syndrome insufficient among the females.

RECOMMENDATIONS

Based on the findings of the present study, the following recommendations are suggested:

a. Establish education program for all female students for increasing their knowledge and decreasing severity of premenstrual syndromesymptoms through using health booklets, posters.
b. Encouraging young female to changing lifestyle interventions for relieve their discomfort though charring of public media with emphasizing of its complications.
c. Incorporation of exercises programs into the female secondary school & university programs because it enhances health overall and relieve the premenstrual syndromes.

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