

## Premenstrual Syndrome among College of Nursing Students

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### ABSTRACT

**Background and Objectives:** Premenstrual syndrome which affects women during their reproductive life, causes a cluster of physical, psychological and behavioral symptoms, which prevent many women from functioning properly. The main objective of this study is to find out the prevalence of premenstrual syndrome among college of nursing students.

**Methods:** Cross sectional study was conducted, which included (112) students the data were collected through the use of questionnaire which included the following parts: background information, physical and psychological symptoms of premenstrual syndrome, during the 1<sup>st</sup> week of October, 2009.

**Results:** Majority of study sample complained from more than one symptom of premenstrual syndrome. There was no significant statistical difference between symptoms of premenstrual syndrome and regularity of menstruation.

**Conclusions:** Majority of study sample had premenstrual syndrome symptoms and these symptoms affected their study and clinical training.

**Key words:** Premenstrual syndrome, students, college of nursing.

### INTRODUCTION:

Premenstrual syndrome (PMS), which occurs in beginning of the luteal phase (7-10 days before the onset of menstruation) and subsides with the commencement of menstrual flow. It affects women during their reproductive life, mostly in their twenties and thirties<sup>1,2</sup>. The causes of PMS are not clear; it is linked to the hormonal changes during menstrual cycle and the psychological status of women and their cultural attitude may affect its severity. Most often PMS is likely to be a combination of these factors. Studies indicate that women in different cultures experience premenstrual events differently, for example, a study of Chinese women in Hong Kong reported that pain was the most significant PMS symptoms, while depression predominated in Western women<sup>3</sup>. Premenstrual syndrome is a cluster of physical, psychological; and behavioral symptoms; physical symptoms include fluid retention (abdominal bloating,

edema of lower extremities, breast tenderness and weight gain), while behavioral changes include depression, crying, spells, irritability, panic attacks, impaired ability to concentrate, headache, fatigue, insomnia.<sup>4, 5, 6,7</sup> Premenstrual syndrome is undoubtedly real and causes genuine distress in many women, preventing them from functioning at full capacity<sup>3,8</sup>. The investigators observed that many female nursing students usually complain from poor performance in the educational area due to premenstrual symptoms, and since a similar study about premenstrual syndrome probably was not done in Erbil city, therefore it is the intention of this research to study such a

### Objectives of the study:

The main objectives of the study are to find out: Prevalence of physical and psychological symptoms of premenstrual syndrome and their effect on student's activities.

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**SUBJECTS AND METHODS:**

Cross sectional study was conducted in the College of Nursing, Hawler Medical University which is a four year nursing program and awards Bachelor of Science in nursing to its graduates. The sample of the study included all female students in second, third and fourth stages of the college with a total of (130) students during the academic year 2009-2010. The first year students were excluded as they were not enrolled in the college at the time of the study. The total numbers of respondents were 112 students. A questionnaire was designed by The investigators and included the following parts, background information physical and psychological signs and symptoms of PMS, and the effect of PMS on student daily activities. Validity

**Table (1)** Distribution of the study sample

Class	Total no.	Sample of study	
		No.	%
2 <sup>nd</sup>	48	43	38.39
3 <sup>rd</sup>	37	33	29.46
4 <sup>th</sup>	45	36	32.14
<b>Total</b>	130	112	86.15

questionnaire was secured. Data were collected during the 1<sup>st</sup> week of October /2009. Statistical analysis SPSS version 11.5 was used for data entry and analysis of the results. Chi-square test has been used in the present study for determining the significance of the results. P-Value less or equal to 0.05 was regarded as statistically significant.

**RESULT:**

Table 1 shows that the highest percentage (38.39%) of the study sample was from second class. Results of the study revealed that out of 130 female students, 112(86.15%) of them responded to the questionnaire, findings of the study indicated that out of the total sample of 112 students, 91(81.3%) complained from more than one symptom of premenstrual syndrome. Table (2) Shows that the majority (87.5%) of the study sample were single, (67.9%) of them had regular menstrual cycle and (84.8%) of them had moderate amount of menstruation. Results also showed that the age range of study sample was (19-30) years, Mean ( $\pm$  SD) was  $21.15 \pm 2.032$  years, the length of menstruation flow was (2-9) days, Mean ( $\pm$

**Table (2)** Background information of study sample

Marital Status	Sample of study	
	No.	%
Single	98	87.5
Married	14	12.5
Total	100	100%
<b>Regularity of menstruation</b>		
Regular	76	67.9
Irregular	36	32.1
Total	100	100%
<b>Characteristics of menstrual flow</b>		
Scanty	9	8
Moderate	95	84.8
Heavy	8	7.2
Total	100	100%

Table (3) indicates that the highest percentage (91.2%) of the study sample that had premenstrual syndrome symptoms complained of fatigue, (82.4%) of them had generalized muscle and joint pain,(71.42%)

of them complained of breast tenderness, while (61.55%, 61.55%) of them respectively had abdominal bloating or swelling and abdominal cramps.

**Table (3)** Physical premenstrual symptoms among study sample.

Symptoms	Yes		No		Total	
	No.	%	No.	%	No.	%
Fatigue	83	91.2	8	8.8	91	100
Generalized muscle and joint pain	75	82.41	16	17.58	91	100
Breast tenderness	65	71.42	26	28.58	91	100
Poor appetite	59	64.84	32	35.16	91	100
Abdominal bloating or swelling	56	61.53	35	38.47	91	100
Abdominal cramps	56	61.53	35	38.46	91	100
Headache	38	41.75	53	58.25	91	100
Excessive sleep	36	39.56	55	60.44	91	100
Insomnia	35	38.46	56	61.54	91	100
Dizziness	34	37.36	57	62.64	91	100
Binge eating	11	12.08	80	87.92	91	100
Swelling of extremities	9	9.9	82	90.1	91	100

Results of the present study (table 4) indicates that the highest percentage (71.42%) of study sample who had

syndrome complained from irritability and anger while (63.74%) of them mentioned

**Table (4)** Psychological premenstrual symptoms among study sample.

Symptoms	Yes		No		Total	
	No.	%	No.	%	No.	%
Irritability and anger	65	71.42	26	28.58	91	100
Depressed mood	58	63.74	33	36.26	91	100
Social avoidance	43	47.25	48	52.75	91	100
Readiness to cry	40	43.95	51	56.05	91	100
Poor concentration	33	36.26	58	63.74	91	100
Confusion	32	35.17	59	64.83	91	100
Lethargy	31	34.06	60	65.94	91	100
Feeling of hopelessness	28	30.76	63	69.24	91	100
Forgetfulness	26	28.57	65	71.43	91	100
High energy	23	25.27	68	74.73	91	100

Table 5 revealed that the highest percentage (78.02%) of students who had premenstrual symptoms complained of

syndrome symptoms with no statistically significant differences between both groups.

**Table (5)** Effect of premenstrual syndrome symptoms on sample's activities.

Activities	Yes		No		Total	
	No.	%	No.	%	No.	%
Difficulty to continue clinical training	71	78.02	20	21.98	91	100
Visit friends:	39	42.85	52	57.15	91	100
Difficulty to study	55	60.43	36	39.57	91	100
Taking leave from the college	9	9.9	82	90.1	91	100
Usually absent from the college	8	8.8	83	91.2	91	100
Postponing examination	7	7.7	84	92.3	91	100

in continuing clinical training during that period, and (60.43%) of them had difficulties in studying.

Table 7 revealed that the prevalence of PMS (91.7%) among those with irregular bleeding was higher than prevalence

**Table (6)** Prevalence of premenstrual syndrome symptoms according to marital status:

Marital status	symptoms				X <sup>2</sup>	P
	Yes		No			
Single	80	81.6	18	18.4	0.08	0.789
Married	11	78.6	3	21.4		

Table 6 revealed that the highest percentage (81.6%) of single students and (78.6%) of married students had

(76.3%) among those with regular menstruation (P= 0.052)

**Table (7)** Prevalence of premenstrual syndrome symptoms according to regularity of menstruation:

Regular	Symptoms					
	Yes		No		X <sup>2</sup>	P
	No.	%	No.	%		
Regular	58	76.3	18	23.7	3.779	0.052
Irregular	33	91.7	3	8.3		

**Table (8)** Prevalence of premenstrual syndrome symptoms according to amount of menstrual flow:

Amount	Symptoms				X <sup>2</sup>	P
	Yes		No			
	No.	%	No.	%		
Scanty	8	88.9	1	11.1	2.236	0.327
Moderate	78	82.1	17	17.9		
Heavy	5	62.5	3	37.5		

Table 8 shows that the highest prevalence of PMS was among those with scanty menstrual flow, while 62.5% of those with heavy flow had PMS (P=0.327).

#### DISCUSSION:

Results of the present study indicated high prevalence of premenstrual symptoms (81.3%) among study sample, and this finding is almost similar to previous epidemiologic surveys which estimated high(80-90%) frequency of premenstrual symptoms<sup>9</sup> and less prevalence than (92%) among adults in China<sup>1</sup>. The mean age (13.375±1.290) of menarche or the first onset of menstruation of the present study was higher than results of a previous study<sup>1</sup>. Which included (94) schoolgirls from four secondary schools and reported that the mean age of menarche was 12.05±1.24 years. Findings of the present study regarding the length of menstrual flow which was between 2 to 9 days (X= 5.75± 1.104) was almost similar to results of a previous study which indicated that the length of menstruation was from 3-8 days (X= 5.56±1.14). Majority of the study sample reported more than one premenstrual syndrome symptoms this result was in line reported in western women and Indonesian women<sup>9, 11</sup> Physical symptoms which were mentioned by present study sample included fatigue (91.2%),generalized muscle and joint pain (82.4%),breast tenderness(71.42%) and

respectively complained of abdominal bloating and abdominal cramps, while results of a study which included 124 nursing students complained only from the following symptoms :Breast swelling and tenderness (51%) and tiredness (49%)<sup>10</sup>,which means sample of the present study had more symptoms with higher percentage this variation might due to the fact that women in other cultures suppress there premenstrual discomforts and perceive it as normal function of body due to cultural and traditional practice. The most prevalent psychological symptoms among the respondents of the present study were irritability and anger (71.42%) and depressed mood (63.74%). These results are almost similar to findings of a study carried out in Indonesia and reported that (80.9%) of the sample complained of anger and or irritability and (66.1%) of them reported anxiety or tension<sup>8</sup>. The vast majority (78.02%) of the present study sample who had premenstrual syndrome stated that they had difficulties to continue clinical training, and (60.43%) of them mentioned that they had difficulty to study, certainly students who are not comfortable and relax during their study period especially during clinical training will not learn properly, and that will affect their efficiency and competency as professional nurses after graduation. It is worth mentioning that the previous results supports the opinion of other authors which

indicate that Premenstrual symptoms influence work efficiency or productivity as well as preventing them from functioning at full capacity<sup>3,8</sup>. Results of the study also revealed that there was no significant statistical differences between study sample that had regular and irregular menstruation, these finding are in contrast with a previous study which indicated that there is significant statistical differences between study sample that had regular and irregular menstruation<sup>11</sup>.

### CONCLUSION:

It can be concluded from results of this study that a high percentage of college of nursing students had premenstrual syndrome and that affect their performance .Therefore, it is necessary to prepare a suitable educational program for purpose of controlling premenstrual

### REFERENCES:

- 1.Chau, J., Chang,N.; Effect of an educational programme on adolescents with premenstrual syndrome . Health education research. 1999;14 (6):817-830
- 2.Mcevery.M.,Chang.J., Coupey, S.; Common menstrual disorders in adolescence ,nursing intervention :America J. MCN, 2004;29(1):41-49.
- 3.Lowdermilk.,D. Perr,S; Maternity and women's health care, Mosby, St.Louis. 2000.
- 4.Elliot,H.;Premenstrual dysphoric disorders North Carolina medical Journal 2002; 63(2),72-75.
- 5.Cronje,W., Studd,J.:Premenstrual syndrome and premenstrual dysphoria disorders:primary care. 2002; 29(1).1-2
- 6.Hendrich ,V.:Premenstrual syndrome ,2007 available from: <http://www.womenshealth.gov/faq/premenstrual-syndrome.cfm> Accessed at: 20/10/09
- 7.MEDCEU.Continouing education courses for nurses and health care professional: available from: <http://yenoh93.medceu.com/index/courses/pms.htm> Accessed at: 2/10/09
- 8.Emilia .O., Premenstrual syndrome and premenstrual dysphoric disorder in Indonesian woman ,Berkala Ilmu kedokteran, 2008; 40(3)148-153
9. Rossignal ,A.,Zhang.J.Chen,Y and Xiang,Z. Tea and premenstrual syndrome in the people's republic of china .American Journal of public health, 1989;79;67-69.
- 10-ACOG practice Bulletin. Clinical management guideline for obstetrician gynecologists. premenstrual syndrome. obstetgynecol.2000;

11. Poureslam.M., Ashtiani F.: Assessing knowledge .Attitudes and behavior of adolescent Girls in Suburban Districts of Tehran about Dysmenorrheal and menstrual hygiene, available from <http://www.ams.ac.irAIM/0254/0254219.htm> Accessed at: 10/10/09