The Effect of Premenstrual Syndrome among Adolescent Nursing Female Students on Their Quality of Life

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Abstract

Background: Premenstrual syndrome (PMS) may adversely affect physical and social activities of women's lives and their quality of life (QOL). Thus, understanding health-related QOL of adolescent nursing females affected with PMS is so more essential. **Aim**: to assess the effect of premenstrual syndrome among adolescent nursing female students on their quality of life. **Design:** A descriptive research design. **Setting:** This study was conducted at Faculty of Nursing, Tanta University. **Subjects**: A convenience sample of 446 female nursing students was taken from the first and second academic grades at the academic year 2019-2020. **Tools:** Two tools were used. **Tool I**: An assessment questionnaire sheet: It consisted of two parts as follows: Part (1): Bio- socio demographic characteristics of female nursing students: A) Socio-demographic characteristics of female students and B) Menstrual history of female students. Part (2): Personal experience of the female students regarding premenstrual syndrome. **Tool II:** WHO Quality Of Life (WHOQOL-BREF) questionnaire. **Results:** More than two thirds of the studied females mentioned that they were previously complained of PMS while less than one third of them had no previous PMS. Most of them had poor QOL as a result of PMS. **Conclusion:** Negative highly significant correlations were found between the studied females' QOL and their total level of PMS. **Recommendations:** Health education programs about PMS and its coping behaviors should be conducted for adolescent and nursing female students to improve their QOL.

Key words: Adolescent Female, PMS, quality of life and nursing students.

Introduction

Adolescence is the period of rapid physical growth, psychological and social changes. This period is marked by the onset of menarche in the girls. Menstruation is a natural biological process experienced by all adolescent girls and women in reproductive age. Menstrual health has a close link with women's fecundity and other reproductive health risks. [1, 2]

Pre-menstrual syndrome (PMS) is defined by a variety of physical, behavioral, and emotional or psychological symptoms that occur during the luteal phase of the menstrual cycle and experienced around the time of menstrual flow (begin a few days before menstruation and last for a few days after it). [3-5] Premenstrual dysphoric disorder (PMDD) is a severe form of PMS and recurs for at least two menstrual cycles. [3] Premenstrual dysphoric disorder is a severe form of premenstrual physical and psychological discomfort. The disorder is common and has a negative impact on mental health and quality of life of women suffering from PMDD. [6, 7] Although the etiology of PMDD is unknown, the symptoms of dysphoria, including depression and anxiety, have been associated with serotonergic dysregulation. [8]

Pre-menstrual Syndrome (PMS) is a cyclic recurrence of group of symptoms. Emerging of these symptoms during young age can complicate their interpersonal relationship, social and educational performance in a negative way resulting in poor self-esteem and sense of dissatisfaction and inadequacy. [9-11] Some of the physical symptoms are breast enlargement and sensitivity, edema, weight gain, headache, and fatigue. In addition, anxiety, irritability, mood swings and changes in appetite. [12, 13]

Premenstrual Syndrome is a common psychosomatic disorder. About 30%-50% of women in the childbearing age suffer from mild to moderate form of this disorder and 3%-8% suffer from its sever form. [14] The global prevalence of PMS varies from 75 to 85 %. [5]. The prevalence of PMS found in a study of college students to be 18.4 %. [15] Another study of medical students found that 37% of participants had premenstrual dysphoric disorder (PMDD). [16] The symptoms' devastating effect on these crucial years of life can result in a sense of dissatisfaction and inadequacy. [14]

There is no consensus regarding the diagnostic criteria for PMS because of the subjectivity of many symptoms, the use of self-reports, and the interference of psychological components as well as the lack of specific tests that confirm its diagnosis. Thus, it has been suggested that the American College of Obstetricians and Gynecologists' criteria are used for diagnosis. [5]

Mild PMS is characterized by up to three physical or emotional symptoms, which are sometimes not perceived by women as being PMS. The most severe form of PMS, PMDD, which is characterized by more severe symptoms that are, associated with psychological dominance and intense mood swings, which may exacerbate and/or weaken the existing symptoms. [5, 17]

The etiology of PMS is multifactorial, and it may be influenced by hormonal, genetic, environmental, and socio cultural factors. Hormonal changes may underlie these symptoms which can lead to difficulties in day-to-day functioning and poor quality of life. Other factors related to the menstrual cycle may contribute to the manifestation of PMS, such as the age of menarche, menstrual flow, and other menstruation disturbances. [5, 18, 19]

Another factors associated with PMS found in university students are dietary factors such as consumption of fast food, drinks containing sugar, deep-fried foods and lifestyle factors such as less habitual exercise and poor sleep quality are found to be significantly associated with PMS. [20]

Premenstrual syndrome is associated with a decline in the quality of life. Women with PMS/PMDD have impairment in physical, and also dysfunctions in occupational and social domains. [4, 21] Premenstrual syndrome may adversely affect physical functioning, social activities, psychological health of women's lives and work productivity which interfere with their interpersonal relationships and consequently influencing their quality of life. [5, 19] So, the community health nurse has an important role in addressing the problem of PMS in adolescent females and its effects on their quality of life.

Significance of the study

Understanding health-related quality of life from the perspective of the affected adolescents with PMS is essential to support them and to develop the appropriate interventions to improve their quality of life. [19] Therefore, there is a need to study the quality of life of women

with PMS especially in the adolescents and colleague students.

Aim of the stud

Is to assess the effect of premenstrual syndrome among adolescent nursing female students on their quality of life

Subjects and Method

Subjects

Study design

Descriptive cross sectional study design was utilized in this study.

Setting

This study was conducted at Faculty of Nursing, Tanta University, Egypt.

Subjects

A convenient sample of 446 female nursing students was selected from the first and second academic grades at the academic year 2019-2020 from faculty of nursing, Tanta University. These two grades were specifically chosen to avoid the studied students to be affected with the related knowledge which they will study in the courses of further academic years as in obstetric and gynecology.

The total sample size was calculated using the equation of power analysis. The level of significance was determined at 95% with study power not less than 80%. The

sample size was calculated to be not less than 400 students. Then the researchers increased the number to gain more validity of the results of the collected data.

Tools of data collection

Two tools were used in order to collect the necessary data for this study:

Tool I:- An assessment questionnaire sheet of female nursing students:

It was developed by the researchers based on the related literatures and consisted of two parts as following:

Part (1): Bio- socio demographic characteristics of female nursing students:-

It included:

A- Socio- demographic characteristics of female nursing students: such as age, academic grade, residence, number of female siblings and birth order.

B- Menstrual history of female nursing students: it includes data such as age of menarche, regularity of period, effect of stress on her period, past experience of premenstrual symptoms, types of premenstrual symptoms, frequency of PMS and taking medications for PMS.

Part (2):- Personal experience of the female nursing students regarding premenstrual syndrome:

The premenstrual syndrome scale was used to collect the data for this part. The researchers were reassured to use this scale after testing its validity and reliability by Srinivasagam in 2014 [22]. The scale comprised from 40 questions distributed on three sub-scales as follows: [physiological symptoms (16 questions), psychological symptoms (12 questions) and behavioral symptoms (12 questions). Each student circled the number that most closely describes the intensity of premenstrual symptoms of her cycle. These symptoms that would occur seven days before her period and ends about the time bleeding started. Each item (question) of this scale was rated from (1) which indicated no symptoms to (5) which indicated extreme symptoms.

Scoring system

A 5-point Likert- type scale was used for rating the 40 items (questions) of this scale as follows:

Never was scored as "1", rarely as "2", sometimes as "3", much as "4" and too much as "5" points. The total score for each three sub-scales was submitted. The highest degree indicated the highest level of severity of PMS.

In addition, the total score of the all scale (40 questions) were submitted which ranged from (40 – 200) and its scores' percentages were categorized into the levels of premenstrual symptoms as follows:

- **No symptoms**: (40- < 72)
- **Mild symptoms**: only slightly apparent (72- < 104)
- **Moderate symptoms**: aware of symptom, but it doesn't affect daily activity at all (104 – < 136)
- **Severe:** continuously bothered by symptoms (136 – < 168)
- **Very severe**: symptom is overwhelming and /or interferes with daily activity (168 - 200)

Tool II:- WHO Quality Of Life (WHOQOL-BREF) [23] **questionnaire for female nursing students:**

The WHOQOL-BREF is a shorter version of the WHOQOL-100. It was developed by the World Health Organization (WHO) and published in 1995. It was developed over several years and from 15 centers around the world. The questions stem from multiple statements about quality of life, health and well-being from people with and without disease, and

health professionals. It has been tested for reliability and validity.

The WHOQOL-BREF is a self-administered questionnaire comprising 26 questions on the individual's perceptions of their health and well-being over the previous two months. Responses to questions are on a 1-5 Likert scale where 1 represents "disagree" or "not at all" and 5 represents "completely agree" or "extremely".

Scoring system

A 5-point Likert- type scale was used ranging from 1 which indicates "not satisfied or not at all" to 5 which indicates "completely agree or very satisfied". The scores of all items are summed up to calculate total score of the quality of life (QOL) of the studied nursing students, and then classified into three categories as following:

- **Poor QOL:** < 60 % of the total score
- **Fair QOL:** 60 % – 75 % of the total score
- **Good QOL:** > 75 % of the total score

Method

The operation of this study was carried out as follows:-

1- **Administrative process (obtaining approval)**

An official permission to conduct this study was obtained from the responsible authority of Faculty of Nursing and its ethical committee. This is to gain the permission and cooperation to collect the needed data for this study.

2- **Ethical and legal considerations**

- An informed consent was obtained from all study subjects after providing appropriate explanation about the purpose of the study.

- Each participant was informed that she had the right to withdraw from the study at any time she wants.

- Nature of the study did not cause any harm or pain for the entire sample.

- Confidentiality and privacy were put into consideration regarding the collected data.

3- **Developing the tools**

- The study tool 1 (part 1) was developed by the researcher based on literature review.

- Tool I (part 2) was adopted from the premenstrual syndrome scale. [22]

- Tool II was adopted from WHO Quality Of Life (WHOQOL-BREF) questionnaire. [23]

- The study tools were tested for its face and content validity by five experts in the field of community health nursing.

- The study tools were tested also for its reliability by using Chronabach's alpha test. It was computed and found to be

0.843 for the total sheet while it was 0.914 for the personal experience of the female nursing students regarding premenstrual syndrome scale and it was 0.599 for the quality of life scale.

4- The pilot study

A pilot study was carried out by the researcher on 10% of the subjects (45 students) for testing the tools for its clarity, applicability and to identify obstacles that may be encountered with the researcher during data collection. Accordingly, the necessary modifications were done where some questions were omitted and others were paraphrased. So, those students were excluded from the actual study sample.

5- The actual study

- The data were collected by the researchers over a period of 3 months starting from first of October to the end of December 2019.
- The researchers introduced themselves to the female nursing students and explained the purpose and importance of the study.
- Anonymity and confidentiality of the female students' information were considered and emphasized at the beginning of the interview. This helped to gain their cooperation.

- The questionnaire was given to each student to fill it individually.
- The average time spent for collecting data from each student was approximately 20-25 minutes.

6- Statistical analysis

The collected data were coded, organized, tabulated and statistically analyzed using (Statistical Package for Social Studies) SPSS version 19. For numerical values the range mean and standard deviations were calculated. For categorical variable the number and percentage were calculated and differences between subcategories were tested by chi square test. The correlation between two variables was calculated using Pearson's correlation coefficient. The level of significant was adopted at $p < 0.05$.

Results

Table (1): Shows distribution of socio-demographic characteristics of the studied nursing female students. It was found that the age of less than two thirds (61.9%) of the studied nursing females students was less than 20 years old. Their ages ranged between 18-21 years with a mean age of 18.92 ± 1.04 years. More than half (55.4 % and 50.9 %) of them were in

the 2nd grade and from urban residence respectively.

Regarding the number of their female siblings, less than one third (31.4 %) of the studied females had one sister, more than one quarter (25.8 %) of them had two sisters and more than one fifth (21.5 % and 21.3 %) of them either had no sisters or had three sisters or more respectively. Concerning the birth order of the studied female students, the table revealed that less than two fifths (38.6 % and 37 %) of them were the oldest or the middle sister respectively while less than one quarter (24.4 %) of them were the last or youngest sister.

Table (2): Demonstrates the distribution of the studied nursing female students according to their menstrual history. More than three quarters (76.5 %) of the studied female students had their menarche between the ages of 12-15 years. More than one half (50.2 %) of them had a nearly regular period while more than one quarter (25.6 %) of them had completely irregular period.

As regard to the effect of stress on the studied females' period, the table revealed that more than two thirds (70.9 %) of the studied females mentioned that stress

affecting their period. Concerning the previous premenstrual symptoms, more than two thirds (68.8 %) of the studied females mentioned that they were previously complained of PMS while less than one third (31.2 %) of them had no previous PMS.

 The most prevalent complain was colic which was experienced by more than one quarter of the studied females followed by muscle pain which experienced by less than one quarter of them (26.7 % and 23.3 %) respectively. However, less than one half (47.5 %) of the studied females mentioned that they were experienced PMS monthly.

Table (3): Shows the distribution of the studied nursing female students according to their total level of physiological, psychological and behavioral premenstrual symptoms. It was obvious that more than one third (35% and 36.8%) of the studied female students had experienced severe physiological and psychological premenstrual symptoms respectively and more than one fifth (21.1%) of them had severe behavioral symptoms. Meanwhile, nearly about half (50.2% and 48.4) of the studied students had moderate behavioral and physiological

symptoms respectively. Additionally, more than one third (38.1%) of them had moderate psychological symptoms. About one quarter (25.1%) of them had mild behavioral symptoms.

Figure (1): Shows the distribution of the studied female students according to their total level of PMS. It illustrated that more than half (53.4%) of the studied female students had moderate level of PMS. More than one third (34.3%) of them had severe level of PMS and only 11.2 % of the studied females had mild level of PMS.

Figure (2): Shows the distribution of the studied female students according to their total level of quality of life related to PMS. It illustrated that less than two thirds (60.5%) of the studied female students had poor quality of life as a result of PMS. More than one third (38.8%) of them had fair level of quality of life. Only 0.7 % of them had good level of quality of life related to PMS.

Table (4): Presents the correlation between female' socio-demographic characteristics and menstrual history and their PMS and QOL. There was positive highly significant correlation between the age of the studied female

students and their experience of PMS (r= .219 & p= <.001). While, negative significant correlation was found between residence of the studied students and PMS (r= -.114 & P= 0.016). Meanwhile, negative significant correlation was observed between birth order of the studied females and their quality of life (r= -.120 & p= 0.011). Negative highly significant correlation was found between the regularity of the students' period and the total level of their PMS (r= -.205 & P=<.001). The table also showed that, negative significant correlation was observed between level of QOL and students' age of menarche (r=-.106 & P= 0.025) while, the level of QOL was significantly and positively correlated to the regularity of their period (r=.112 & P= 0.018).

Table (5): Illustrates the correlation between nursing female students' PMS and their QOL. It was clear that negative highly significant correlations were found between the studied females' quality of life and their physiological, psychological and behavioral symptoms of the total level of PMS (P= 0.002, 0.001, <.001and <.001) respectively.

Table (1): Distribution of the studied nursing female students according to their socio-demographic characteristics (N= 446)

Socio-demographic characteristics	(N= 446)	%
Age:		
• < 20 years	276	61.9
• ≥ 20 years	170	38.1
	Average 18-21	
	Mean ± SD 18.92±1.04	
Academic grade:		
• 1st Grade	199	44.6
• 2nd Grade	247	55.4
Residence:		
• Rural	219	49.1
• Urban	227	50.9
Number of female siblings:		
• Have no sisters	96	21.5
• one sister	140	31.4
• Two sisters	115	25.8
• Three sisters or more	95	21.3
	Average 0-3	
Birth order		
• The first	172	38.6
• The middle	165	37
• The last	109	24.4

Table (2): Distribution of the studied nursing female students according to their menstrual history (N= 446)

Menstrual data	(N= 446)	%
Age of menarche:		
• < 12 years	74	16.5
• 12 – 15 years	341	76.5
• > 15 years	31	7
Regularity of the period:		
• Completely irregular	114	25.6
• Nearly regular	224	50.2
• Regular	95	21.3
• Completely regular	13	2.9
Effect of stress on your periods:		
• No	130	29.1
• Yes	316	70.9
Past experience of premenstrual symptoms:		
• No	139	31.2
• Yes	307	68.8
Types of premenstrual symptoms:		
• No symptoms	139	31.2
• Colic	119	26.7
• Vomiting	55	12.3
• Fever	29	6.5
• Muscle pain	104	23.3
Frequency of PMS:		
• don't know	43	9.6
• Never	96	21.5
• Twice in her life	7	1.6
• Twice per year	10	2.2
• Every two months	78	17.5
• Monthly	212	47.5
Taking medications for PMS:		
• No	333	74.7
• Yes	113	25.3

Table (3): Distribution of the studied nursing female students according to their total level of physiological, psychological and behavioral PMS (N= 446)

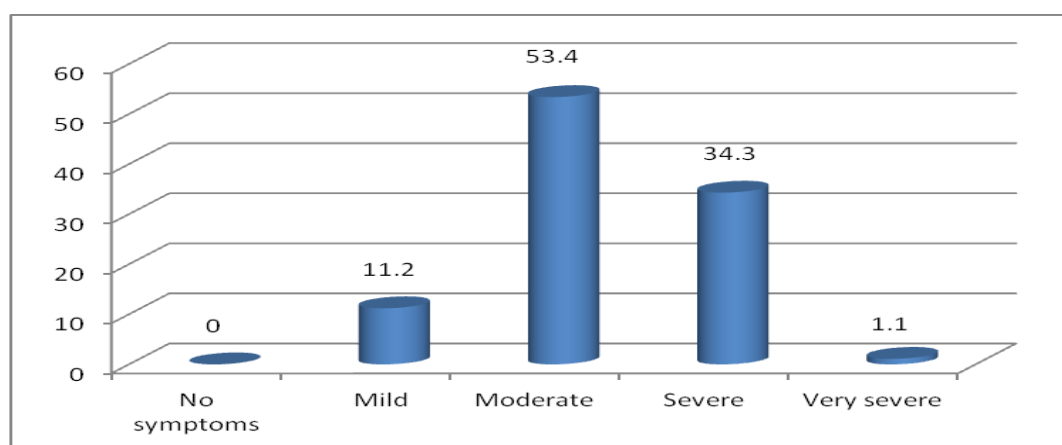| Total levels of PMS	Physiological PMS		Psychological PMS		Behavioral PMS	
	No	%	No	%	No	%
No symptoms	0	0.0	0	0.0	6	1.4
Mild symptoms	68	15.2	70	15.7	112	25.1
Moderate symptoms	216	48.4	170	38.1	224	50.2
Severe symptoms	156	35.0	164	36.8	94	21.1
Very severe symptoms	6	1.4	42	9.4	10	2.2

Figure (1): Distribution of the studied female nursing students according to their total level of PMS
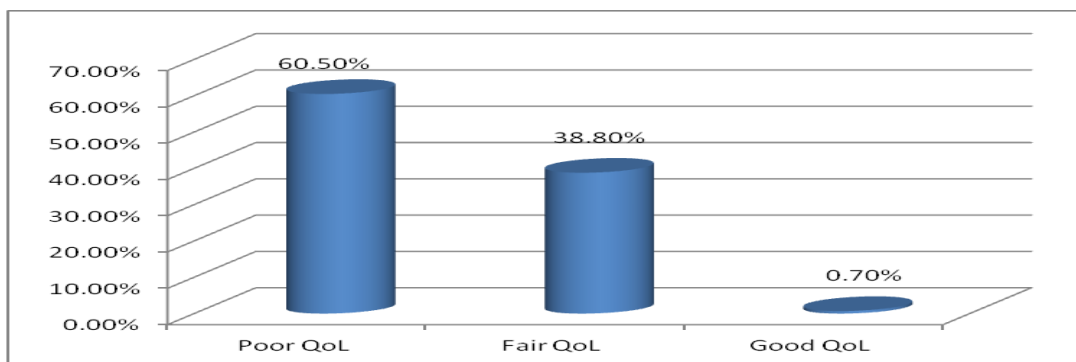
Figure (2): Distribution of the studied nursing female students according to their total level of quality of life related to PMS

Table (4): Correlation between female' socio-demographic characteristics and menstrual history and their PMS and QOL

Socio-demographic data	PMS		QOL	
	R	P	R	p
Age	.219	<.001**	.039	.410
Residence	-.114	.016*	-.054	.258
Birth order	-.021	.666	-.120	.011*
Age of menarche	-.025	.604	-.106	.025*
Regularity of period	-.205	<.001**	.112	.018*

*Significant at p<0.05   **High Significant at p<0.001

Table (5): Correlation between nursing female students' PMS and their QOL

Females' PMS	females' QOL	
	R	P
Physiological symptoms	-.144	.002**
Psychological symptoms	-.156	.001**
Behavioral symptoms	-.183	<.001**
Total PMS	-.168	<.001**

** Highly Significant at p< 0.001

Discussion

Menstruation is the hall mark of every girl. Menstrual cycle is an inevitable part of a woman's life and an important indicator of normal sexual and reproductive health [1, 2]. The present study indicated that the age of 61.9% of the studied females was less than 20 years old. Their ages ranged between 18-21 years and half of them were from urban area. This is consistent with the results of the study conducted by **(K. BHUVANESWARI et al., 2019),** which indicated that, majority of students who participated in the study were between 18 and 22 years of age and 73% of them were from urban areas. [3] Moreover, **(Karpagavalli G and Raj Rani, 2020)**, found that 97.3% of the studied students were between 18 and 22 years. This may be as the current study was conducted on the students in the first and second grades only. [24]

Menarche is a milestone in a woman's life as it denotes the start of reproductive capacity. Attainment of menarche at correct age is an important milestone during adolescence, which signifies the normal functioning of the female reproductive system. [1, 2] According to the current study, more than three quarters of

the studied female students had their menarche between the ages of 12-15 years. This is in line with the study conducted by **(K. BHUVANESWARI et al., 2019)**, in which the age of menarche for the majority of the studied students in their study was ranged from 12-15 years. [3] Additionally, it is similar to the results of the study carried out by **(Abdel Hafez et al., 2015),** in Nursing College at EL- Minia University, which found that most of the students their menarche age ranged from 13 to 15 years. [25]

Regarding regularity of period and stress, the present study revealed that more than one quarter of the students had completely irregular period and most of the students had stress during the period. This is in line with the study conducted in Saudi Arabia by **(Aljebali S S and Alofi L, 2020)**, which found that nearly two fifths of the participants were found to experienced irregular menstrual cycles and 82.5% of them suffered from mood swings or nervousness. [26] On the other hand, it contradicts with the studies conducted by **(Chhetri and Singh, 2020)** [2] and **(Koganti CT and Bobba NS, 2020)**, [27] both revealed that the majority of the

participants have irregular periods. This regularity of period may be associated with hormonal and environmental changes. As well, the high stress numbers may be attributed to nature of those students' study and life which filled of more assignments and activities in addition to hormonal ef Premenstrual syndrome (PMS) refers to a set of distressing symptoms experienced around the time of menstrual flow. [25] The present study revealed that more than two thirds of the studied females mentioned that they were previously complained of PMS. This is consistent with the study done by **(Al-Batanony MA and Al-Nohair SF, 2014)** in Al Qassim university among medical students, which showed a prevalence of 78.5% the prevalence of PMS [28] and **(Karpagavalli G and Raj Rani 2020),** who reported that the prevalence of PMS was 68, 8% among college students of a nursing college at Chennai. [24] While contradicts with **(Tolossa FW, Bekele ML, 2014)**, who found that the prevalence of PMS was 37% among students (women) in a college of health sciences in Northern Ethiopia. [29] This difference may be related to many factors where the occurrence of PMS is influenced by hormonal, genetic,

environmental, and socio cultural factors as well as dietary habits of university students.

Premenstrual syndrome (PMS) is considered a broad range of physical, emotional, and behavioral symptoms. [30] According to the present study, the highest percentages of the studied female students had moderate level of physiological, psychological and behavioral PMS symptoms. Meanwhile, the lowest percentages of them had very sever level of PMS symptoms. Conversely, the study conducted by **(kumari S and Sachdeva A, 2016),** in India revealed that most of the studied women suffer only a few of PMS symptoms. [31] This may be attributed to cultural differences between countries in which these studies are conducted.

Regarding the level of PMS, the current study illustrated that more than half of the studied female students had moderate level of PMS. More than one third of them had severe level of PMS and only 11.2 % of the studied females had mild level of PMS. This is agrees with **(Seedhom et al., 2013),** who were found that, the most participants had moderate PMS (64.8%) followed by mild PMS (21.7%), and finally severe PMS

(13.4%). [32] Similarly, **(Mohamed et al., 2013),** reported that, 49.0% of their study subjects had moderate degree of PMS, 27.0% had mild degree of PMS, and 24.0% had severe degree of PMS. [33] Moreover, **(Ibrahim et al., 2012),** their study findings were revealed that, (29.5%, 33.9%, & 36.6%) of students had mild, moderate, and severe degree of PMS respectively at initial assessment. [34] On the other hand, it disagrees with (**Nageeb H et al., 2015),** who found that 55.8% of the studied nursing students in Dakahlia governorate had mild PMS, 34.2% of them had moderate PMS and only 0.4 % had sever PMS.[35] This difference may be related to individual variations and changes in the symptoms threshold from person to person. The present study illustrated that less than two thirds (60.5%) of the studied female students had poor quality of life as a result of PMS. More than one third (38.8%) of them had fair level of quality of life. Only 0.7 % of them had good level of quality of life related to PMS. This is similar to (Karpagavalli G and Raj Rani 2020) (24) and (K Bhuvaneswari 2019), (3) who found poor quality of life among students with PMS across all domains. Conversely, This is not consistent with the results of

(Elgzar WT and Sayed SH, 2017), who found that 86% of college students with PMS had fair quality of life, while only 2% of them had good quality of life and 12% had poor quality of life.(36) This can be explained as this study was conducted in five colleges out of ten -Damanhur University (College of Science, Art, Nursing, Education and Social Work college), Elbehira governorate while the current study is conducted on nursing students only. This may be also due to high prevalence of PMS among the students in the current study.

The present study illustrated positive highly significant correlation between the age of the studied female students, and their experience of PMS. While, negative significant correlation was found between residence of the studied students and PMS. In contrast, (Koganti CT and Bobba NS, 2020), found that, there was no statistically significant association between PMS and all socio-demographic characteristics. (27) In the current study, negative highly significant correlation was found between the regularity of the students' period and the total level of their PMS. This is similar with (Shiferaw et al., 2014), who reported

that, students who had irregular menstruation were 1.87 times more likely to have PMS compared to students who had regular menstruation.(37) This is comparable with (Nageeb H et al., 2015), who showed no statistically significant relation between duration of blood flow, menstrual interval, menstrual regularity and prevalence of PMS.[35]

Moreover, the current study found no significant correlation between students' age of menarche and PMS. This is in the same line with, **(Karpagavalli G and Raj Rani**, **2020),** who showed that, presence of dysmenorrhea and family history of PMS have been associated with PMS. [24] Otherwise, it contradicts with **(Nageeb H et al., 2015),** who found that there was a highly statistically significant relation between age of menarche, the amount of blood flow and PMS's prevalence. [35] In the present study, it was found that, negative highly significant correlations were found between the studied females' quality of life and their physiological, psychological and behavioral symptoms of the total level of PMS**.** This agrees with **(Kustriyanti D and Rahayu H, 2020),** [38] who reported that the quality of life among

students has decreased in all domain, physical health, psychological, social relationships and environment as well as **(K.BHUVANESWARI et al., 2019),** [3] **and (Karpagavalli G and Raj Rani 2020),** [24] who reported that PMS was associated with a poorer quality of life across all domains' In addition, **((Delara M et al. 2012),** [21] affirmed the fact that adolescents with premenstrual disorders suffer from poor health-related quality of life. Moreover, **(Al-Batanony MA and Al-Nohair SF, 2014),** found an association of PMS with physical problems, vitality, mental health and body pain, indicating decreased quality of life. [28] Theses all results signified the importance of PMS of the nursing students and its relation with their quality of life.

Conclusion

  Based on the findings of the present study, it can be concluded that, more than two thirds of the studied female nursing students mentioned that they were previously complained of PMS. Most of the students had poor quality of life. Additionally, negative highly significant correlations were found between the studied females' quality of life and their

physiological, psychological and behavioral symptoms of the total level of PMS.

Recommendations

Based on findings of the current study, the following recommendations can be suggested

- Conducting health education programs for adolescents and university students about PMS and its coping behaviors to improve their quality of life.
- Detecting the modifiable factors of PMS is required to decreases its effects on adolescent students.
- Suitable coping strategies should be provided to all females to diminish their suffering from PMS
- Further researches should be conducted to promote the quality of life of university students which results from PMS.

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