A Study to Assess the Prevalence of Premenstrual Syndrome (Pms) Among Adolescent Girls in a Selected College, Thrissur

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Abstract:

Statement Of The Problem: *A study to assess the prevalence of premenstrual syndrome (PMS) among adolescent girls in selected college, Thrissur, with a view to prepare an information pamphlet.*

Research approach and tool: *Anon experimental descriptive survey design was used in this study as research approach and tool adopted for this study was a modified standardized premenstrual syndrome scale.*

Sampling technique: *Cluster sampling technique was adopted for this study.*

Findings: *The results showed that, out of 60 samples, 10% has PMS, 75% were having mild PMS, 15% were having moderate PMS and no one is experiencing severe PMS. According to the ranking of the common symptoms associated with PMS are, 73% were experiencing back ache, 65% were having tiredness and 60% were having irritability. In addition, 48% having tension, 42% having mood swings and 22% suffering from muscle stiffness before the appearance of menstruation. About the other symptoms, 20% had sleeping problems. Finally 18% having dizziness, painful breast , feeling of suffocation and nausea or vomiting.*

Conclusion: *In conclusion, the incidence of PMS is increasing rapidly among girls due to various factors and lifestyle changes.*

I. Introduction

Menstruation is a normal physiological cycle or process in all females in the reproductive age group. However, some women feel or affected by menstruation problems. Among those, one of the disorders is premenstrual Syndrome or PMS. The PMS was first described in 1931 by Frank and Horney and they explained that PMS is occurring mainly due to hormonal imbalance.

Premenstrual syndrome (PMS) is a combination of physical, emotional, psychological, and mood alterations that occur after a woman's ovulation or it is defined as the recurrence of psychological and physical symptoms in the luteal phase, which remit in the follicular phase of the menstrual cycle.The most common mood alterations are depression, irritability, oversensitivity, crying, and mood swings. The most common physical signs and symptoms are mastalgia, acne, fatigue, bloating, and appetite changes with food cravings[1]. According to Melissa Conrad Stöppler, MD, Approximately 90% of women experience some PMS symptoms at some point in their lifetime. It is estimated that clinically significant PMS occurs in 20% to 30% of women.A study conducted to assess the prevalence of PMS and associated symptoms in 153 adolescent girls between 10-17yeras in Hong Kong, found that about 61.4% of the girls are suffering from PMS with a greater severity[2].

Backgroundof the study

A survey study conducted in India among 50 young and 50 middle aged women of S.B.K.S Medical Institute and Research Centre to find the prevalence of premenstrual syndrome with an emphasis on its management. It was found that 42% faced PMS regularly, while 58% occasionally. Of the 100 participants 68% suffered with backache, 64% leg cramps, 62% fatigue, and breast tenderness and anger whereas 58% suffered with anxiety and generalized body ache. Of all the sufferers only 34% had received the treatment for PMS. Irrespective of the age PMS is common problem faced by women[3].

Another study conducted to assess the problems related to menstrual problems in adolescent girls in New Delhi, revealed that drowsiness (92%), irritability (90%), low noise tolerance (68%), anxiety (68%), and decreasedlibido (85%). The most prevalent somatic symptoms are abdominal distension, seborrhoea, headache, and vomiting, cardiac arrhythmias, vascular lesions and dizziness[4].

Objectives

The objectives of the study were to,
1) Assess the level of prevalence of PMS among adolescent girls
2) Associate the selected demographic variables with the prevalence of PMS among adolescent girls

3) To rank the common the symptoms associated with PMS among adolescent girls
4) To prepare an informative pamphlet on prevention of PMS.

II. Material and methods

Research approach: This study adopted a non experimental approach. Research design: Design was descriptive survey design.

Setting of the study: the study was conducted among nursing students of a reputed nursing college at Thrissur.

Population of the study: the population comprised of girls of age between 18-20 years.

Sample size: the sample size was 60 adolescent girls.

Sampling technique: cluster sampling technique was adopted for this study. Randomization from each year/ batch of nursing was achieved by deploying lottery method. The names of all subjects in the population were written down on lots and 60 were chosen randomly, from each cluster, i.e. totally 60 samples.

Data collection tool: the tool consists of three parts
   a) Socio demographic pro forma
      It consists of basic information of the student such as age, type of family she belongs to, onset of menarche, diet, family history, days of menstrual flow and so on.
   b) Modified standardized premenstrual tension syndrome scale
      This is used to assess the psychological symptoms of PMS. Reliability of the tool was 0.89 which evaluate 10 symptoms in different domains, contains total score of 36.
   c) Checklist for assessing the physical symptoms of PMS
      This section consists of 16 common physical symptoms of PMS.

Ethical consideration

A formal permission was obtained from the college authorities and ethical committee to avoid ethical issues. Moreover, Consent was taken from samples.

Data collection procedure

Data collection period was three weeks. Samples were selected by cluster sampling and tools were distributed and collected back the questionnaire from samples.

III. Results
Table 1: Distribution of socio demographic data

Sl. No	Variables	Frequency (f)	Percentage (%)
1.	Age of the student		
	a) 18 years	20	33.3
	b) 19 years	20	33.3
	c) 20 years	20	33.3
2.	Type of family		
	a) Nuclear	58	97
	b) Joint	2	3
3.	Onset of menarche		
	a) Before 12 years	3	5
	b) 13-14 years	48	80
	c) 15 years	5	8
	d) After 15 yaers	4	7
4.	Diet		
	a) Vegetarian	3	5
	b) Non-Vegetarian	57	95
5.	Family history of PMS		
	a) Present	29	48
	b) Absent	31	52

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Table 1: distribution of socio demographic characteristics of subjects (continuation)

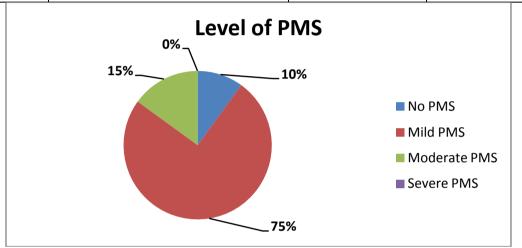| Sl.No	Variables	Frequency (f)	Percentage (%)
6.	Do you take medications for PMS		
	a) Yes	6	10
	b) No	54	90
7.	Do PMS affect your academic performances?		
	a) Do not affect	18	30
	b) Rarely affect	29	48
	c) Moderately affect	9	15
	d) Severely affect	4	7

Figure 1: prevalence of PMS among adolescent girls

According to figure 1, out of 60 samples, 10% has no symptoms of PMS, 75% were showed the mild symptoms of PMS, 15% showed moderate symptoms of PMS and fortunately, no one has experienced severe symptoms of PMS.

Table 2: Ranking of the common symptoms associated with PMS

Rank	Physical symptoms	Frequency (f)	Percentage (%)
1	Back ache	44	73
2	Tiredness	39	65
3	Irritability	36	60
4	Tension	29	48
5	Headache	25	42
6	Abdominal distension	24	40
7	Mood swings	22	37
8	Muscle stiffness	13	22
9	Poor sleeping	12	20
10	Dizziness/ fainting	11	18
11	Painful breast	11	18
12	Feeling of suffocation	11	18
13	Nausea/ vomiting	8	13
14	Cold sweats	6	10
15	Numbness	4	7

According to the above given table, the most common problem is back ache (73%), tiredness (65%) and irritability (60%)

Table 3: association between level of PMS and selected demographic variables.

Sl. No	Socio demographic variables	X^2	d.f
1	Age	1.12*	4
2	Onset of menarche	1.719*	2
3	Family history of PMS	2.984*	2

* Non significant

The data presented in table 3 shows that there is no significant association between PMS and socio-demographic variables like age, onset of menarche and family history of PMS.

IV. Conclusion

In conclusion, we could identify and realized that, PMS is an illness which is growing among the teenage and adolescent girls from the current as well as from the review of literature. So we prepared and distributed a pamphlet which provides information regarding PMS and the preventive aspects in order to improve the awareness among adolescent girls and their parents.

Interest of conflicts

I hereby declare that, we do not want to disclose the name of the college used in this study and keep the name is confidential. And I certify that no funding has been received for the conduct of this study or preparation of this manuscript. And, there are no other conflicts.

Mr. Tibin Joseph

12/11/2015

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