A DESCRIPTIVE STUDY TO ASSESS THE PREVALENCE AND COPING STRATEGIES OF PREMENSTRUAL SYNDROME AMONG ADOLESCENT GIRLS STUDYING IN SELECTED SCHOOLS OF AMRITSAR, PUNJAB, INDIA.

Meenu Sharma* I Darshan Sohi **

**Lecturer, Khalsa College of Nursing College, Amritsar, Punjab, India.*
***Principal, CKD College of Nursing, Amritsar, Punjab, India.*

ABSTRACT

Premenstrual syndrome (PMS) is the recurrent psychological and physical symptoms that occur during luteal phase of menses. The symptoms usually stop when menstruation begins, or shortly thereafter. Premenstrual syndrome is a common problem among young girls and it adversely affects their educational performance and well being. ***Objective:*** *The aim of the study is to assess the prevalence and coping strategies of premenstrual syndrome among adolescent girls with a view to develop guidelines to enhance the knowledge of adolescent girls regarding premenstrual syndrome and coping strategies. A self-structured Likert Scale (34 items) for premenstrual syndrome and self-structured Checklist (30 items) for coping strategies of premenstrual syndrome was used to a population of adolescent girls (n=200) studying in Government Senior Secondary School of Amritsar (Punjab).* ***Results:*** *Out of 200 adolescent girls 178 (89%) girls suffered from premenstrual syndrome. Most of the girls (72%) had mild premenstrual syndrome and only 17% had moderate premenstrual syndrome whereas severe premenstrual syndrome was absent. Majority (55.62%) of girls used medium level of coping strategies, 39.89% used high level coping strategies and only 4% used low level of coping strategies.*

Conclusion: *Most of girls suffered with premenstrual syndrome. There were a limited number of girls who used high level of coping strategies. Strategies should be adopted for detection and management of PMS in young girls.*

Key Words: Premenstrual Syndrome, Prevalence, Coping Strategies.

About Authors

Author Mrs Meenu Sharma is currently working as Lecturer, Khalsa College of Nursing, Amritsar, Punjab, India. She has 12 years of experience in various hospitals & Colleges of Nursing.

Author Dr (Mrs) Darshan Sohi is Principal at CKD College of Nursing, Amritsar, Punjab, India.

Objectives:

1. To assess the prevalence of premenstrual syndrome among adolescent girls.
2. To assess the coping strategies of premenstrual syndrome among adolescent girls.

INTRODUCTION

Adolescence is the period in human growth and development that occurs after childhood and before adulthood, from ages 10 to 19. It represents one of the critical transitions in the life span and is characterized by a tremendous pace in growth and change that is second only to that of infancy. Biological processes drive many aspects of this growth and development, with the onset of puberty marking the passage from childhood to adolescence. Menstruation is a normal physiological impact in each girl's life which starts from puberty. A change in mood, behaviour and appearance of some abnormal vague symptoms are often noticed in second half of the cycle, but if the symptoms are severe enough to disturb life cycle of a women or girl and require medical help, it is called premenstrual syndrome.

In females the menstrual cycle is a self-regulating process during which the body undergoes many physiological and hormonal changes. Females begin their menstrual cycle during puberty at the onset of *menarche*, their first menstrual period. Females continue to have many menstrual cycles throughout their lives until menopause occurs between ages 40 to 60. The average menstrual cycle lasts about 28 days, but may vary from 24 to 42 days **Santo Barbara (2013)**.

Premenstrual syndrome is defined as the cyclic recurrence of physical, psychological, or behavioral symptoms that appear after ovulation and resolve with the onset of menstruation. These symptoms can be severe enough to disrupt personal relationships, social activities or job performance. The exact cause of Premenstrual syndrome is unknown. The best tool to diagnose Premenstrual syndrome is a daily symptoms rating calendar. To have the diagnosis of Premenstrual syndrome, the symptoms must be severe enough to disrupt normal daily activities. The occupational health nurse can provide information about first line treatment modalities for Premenstrual syndrome symptoms including dietary modifications, nutritional supplements, aerobic exercise and stress management skills. More research is needed about Premenstrual syndrome in the workplace and the effect of treatments on outcomes such as job attendance and work performance **Tempel (2001)**.

A study on prevalence of premenstrual syndrome and their effect on daily life among 7226 women of age group 15-49 at the University of Melbourne, Australia. They stated that the most prevalent symptoms were abdominal bloating, cramps or abdominal pain, irritability, mastalgia and joint/muscle/back pains. Four of the five most prevalent premenstrual symptoms were physical. Premenstrual physical and mental symptom domains had similar negative effects on activities of daily life. Impact on activities was affected by education and exercise participation.

The investigator's own observation, discussion with adolescent girls and from the above literature, it is found that premenstrual syndrome adversely affects the quality of life. Proper knowledge and information should be provided to the girls so that they effectively cope and adjust themselves with premenstrual syndrome. The investigator felt the need to assess the prevalence of premenstrual syndrome and coping behaviour among adolescent girls with a view to develop guidelines to enhance the knowledge of adolescent girls regarding the premenstrual syndrome and coping strategies.

MATERIAL AND METHOD

Research approach: For the present study, the quantitative research approach was used.

Research Design: For the present study, Descriptive research design was used.

Variables under study: Prevalence and coping strategies of premenstrual syndrome, age (in years), class, place of residence, dietary pattern, type of family, Mother's education and family income per month in Rupees.

Selection and description of research setting: The study was conducted in Government Girls Senior Secondary School, Chherhata, Amritsar. The school is up to 10+2 standard. At present, around 1200 students are studying in the school. Mrs. Santosh is the principal of the school.

Sample & Sample size: The sample of the present study was adolescent girls in the age group 13-19years studying in

Government Senior Secondary School of Amritsar (Punjab) and the total sample size were 200 adolescent girls.

Sampling technique: A purposive sampling technique was used to select the sample.

Description of tool:

The tool consists of following parts:

PART A : Socio-demographic Data

The part consists of items for obtaining personal information about such as Age in years, Place of Residence, Dietary Pattern, Type of Family, Academic Qualification of mother, Family income.

PART B : A Five point likert scale to assess the prevalence of premenstrual syndrome

This part consists of a Likert Scale regarding prevalence of premenstrual syndrome. There are total 34 symptoms which are divided into 5 point likert scale score i.e. Never (1), Rarely (2), Sometimes (3), Very Often (4), Always (5). So, the maximum prevalence score is 170 , and minimum prevalence score is 68.

CRITERION MEASURE:-

Adolescent girl's prevalence rate is categorized into 3 levels

Levels of Prevalence rate	Total Score	Total Percentage
Mild	68 -94	40 -55 %
Moderate	95 -119	56 -70%
Severe	120-170	71-100%

Procedure: Data collection procedure was done in the month of January 2014. The sample consisted of 200 subjects. A purposive sampling was used to select the sample from the population. Prior to the data collection procedure, the formal permission was obtained from the Principal of the Government Girls Senior Secondary School of Amritsar. The Self-Structured tools were edited by the experts. Prior to data collection on premenstrual syndrome and coping strategies, investigator gave self introduction to the adolescent girls and explained the purpose of gathering information: a good rapport was established with the subjects. They were assured that their responses will be kept confidential and the information will be used only for research purpose. Verbal consent was taken from adolescent girls. The time given to each respondent for interview was average 15-20 minutes. At the end, guidelines were provided to the adolescent girls and queries of the subjects were clarified.

TABLE 1

Frequency and Percentage Distribution of Sample Characteristics

N=200

DEMOGRAPHIC VARIABLES	FREQUENCY (n)	PERCENTAGE (%)
Age (In years)		
13-14	68	34
15-16	58	29
17-18	45	22.5
≥ 19	29	14.5
Class		
9th	70	35
10th	78	39
10+1	33	16.5
10+2	19	9.5
Place of Residence		
Urban	176	88

Rural	24	12
Dietary Pattern		
Vegetarian	160	80
Non-vegetarian	40	20
DEMOGRAPHIC VARIABLES	**FREQUENCY (n)**	**PERCENTAGE (%)**
Type of Family		
Nuclear	132	66
Joint	68	34
Mother's Education		
Illiterate	43	21.5
Primary	24	12
Elementary	37	18.5
Matric	66	33
Sen. Sec	25	12.5
Graduate or above	5	2.5
Family Income (Rupees /month)		
≤5000	108	54
5,001 – 10,000	66	33
10,001-15,000	16	8
15,001 or above	10	5

RESULTS

Description of sample characteristics

TABLE 1 reveals the frequency and percentage distribution of sample characteristics. Distribution of study subjects according to age of the adolescent girls shows that most (34%) of adolescent girls were in the age group of 13-14 years, which was followed by 15-16 (29%), 17-18 (22.5%), ≥19 (14.5%). According to place of residence, the majority (88%) of adolescent girls was from the urban area and only 12% belonged to rural areas. In the dietary pattern, most (80%) of the adolescent girls were vegetarian and 20% were non-vegetarian. According to type of family, majority 66% of adolescent girls belonged to nuclear families and only 34% belonged to joint families. As per their Mothers' education, most (33%) of adolescent girls' mothers were matric passed that was followed by illiterate (21.5%), elementary (18.5%), primary (12%), Senior Secondary (12.5%), and graduate or above (2.5%). According to family income (Rs/month), most (55%) of the adolescent girls' family income was ≤5000 that was followed by 5,001-10,000 (33%), 10,001-15,000 (5%) and 15,001 or above (5%).

Hence, it can be concluded that out of 200 adolescent girls, majority of adolescent girls were in the age group 14-15 who lived in urban areas. Maximum adolescent girls were vegetarian and from nuclear families. Majority of adolescent girls' mothers were matric passed and family income was ≤5,000.

OBJECTIVE 1 – To assess the prevalence of premenstrual syndrome among adolescent girls

TABLE 2

Frequency and Percentage Distribution of Prevalence of Premenstrual Syndrome according to Levels of PMS

N = 178

Levels of PMS*	Prevalence of Premenstrual syndrome			
	N	%	Mean	S.D.
Mild	144	72	79.58	7.852
Moderate	34	17	104.94	7.152
Severe	-	-	-	-
Overall PMS*	178	89	84.427	12.62

Maximum PMS prevalence score = 170 *Minimum PMS* prevalence score = 68

PMS* - Premenstrual syndrome

Table 2 show the prevalence of premenstrual syndrome among adolescent girls. Out of total 200 adolescent girls, 178 (89%) girls suffered from premenstrual syndrome among which 144 (72%) of girls had mild level of premenstrual syndrome and 34 (17%) girls had moderate level of premenstrual syndrome. There was no severe premenstrual syndrome among adolescent girls.

Hence, it is concluded that most of the adolescent girls suffered from mild premenstrual syndrome.

OBJECTIVE 2 – To assess the coping strategies of premenstrual syndrome among adolescent girls

TABLE 3

Frequency and Percentage Distribution of Coping Strategies of Premenstrual Syndrome (According to Levels of Coping)

N = 178

Levels of Coping	n	%	Mean	S.D
Low	8	4.41	4.875	1.246
Medium	99	55.62	11.364	2.841
High	71	39.89	17.099	1.232

Maximum Coping score = 30 Minimum Coping score = 0

Table 3 show the coping strategies of premenstrual syndrome among adolescent girls. 99 (55.62%) girls used medium level of coping strategies of premenstrual syndrome, 71(39.89%) used high level of coping strategies and only 8 (4.41%) girls used low level of coping strategies who suffered from premenstrual syndrome.

Hence, it is concluded that most of the adolescent girls used medium level of coping strategies.

DISCUSSION

To assess the prevalence of premenstrual syndrome among adolescent girls -

The analysis of data regarding the prevalence of premenstrual syndrome among adolescent girls revealed that out of 200 adolescent girls, 178 (89%) adolescent girls suffered from premenstrual syndrome among which 144 (72%) had mild and 34 (17%) had moderate premenstrual syndrome. Severe premenstrual syndrome was not present. A similar study on frequency, intensity and impact of premenstrual syndrome by **Nisar N et al (2006)** revealed that 51% young girls are suffering from premenstrual syndrome among which 59.51% had mild, 29.2% had moderate and 11.2% had severe premenstrual syndrome. An another study on frequency of premenstrual syndrome by **(Derman Orhan et al 2004)** showed that 61.4% adolescent girls had premenstrual syndrome among which 49.5% had mild, 37.1% had moderate and 13.4% had severe premenstrual syndrome.

To assess the coping strategies of premenstrual syndrome among adolescent girls.

The analysis of data regarding coping strategies of premenstrual syndrome among adolescent girls revealed that out of 178 adolescent girls who were suffering from premenstrual syndrome, 99 (55.62%) used medium level of coping strategies, 71 (39.89%) used high level of coping strategies and 8 (4%) used low level of coping strategies.

IMPLICATIONS: Nursing Education:

- The study has an important implication in the nursing education and other field. In the revised curriculum of basic nursing education & in post graduation, much emphasis is laid on premenstrual syndrome.
- Teaching learning activities should include health education on assessment and prevention of gynaecological problems and promotion of knowledge regarding premenstrual syndrome and its coping strategies.
- Nurses should provide guidance and counseling services to adolescent girls which will lead to promotion of healthy life.

NURSING PRACTICE:

- Nursing care of adolescent girls in Government Sen. Sec Schools setting focuses on problem identification and stabilizing the situation. Early recognition of prevalence of premenstrual syndrome and its coping strategies are very essential and whole staff should be sensitized towards it. Therefore, there is a need for health counselor who can provide knowledge and prevent situation at three levels:

- At primary level, the nurses can assess prevalence and coping strategies of premenstrual syndrome.
- At Secondary level, the measure like exercises, diet, sleep & rest, relaxation techniques, medication, alternative therapies, or others etc can be used to enhance the health status and better coping of girls.
- At tertiary level, a nurse can detect and prevent gynaecological problems by promoting coping strategies and providing referral for intense disorders.

- Evidence based practice is the need of today's practice. Based on evidence, nursing practice can be modified and improved.

NURSING ADMINISTRATION:

- Nurse administrator can conduct in services education and training programme for nurses working at different health care centre dealing with premenstrual syndrome its coping strategies
- Nurse administrator should organize awareness campaign for adolescent girls or mothers of adolescent girls who suffered from premenstrual syndrome.

CONCLUSION

- The prevalence of premenstrual syndrome among adolescent girls of selected school of Amritsar was 89%.
- Most (55.62%) of the adolescent girls who suffered from premenstrual syndrome used medium level of coping strategies.
- So, medical personnel who take care of adolescent girls should pay more attention to these symptoms and establish strategies for prevention and treatment of these symptoms. Greater efforts to identify premenstrual syndrome and correct them might improve adolescent girl's quality of life.

REFERENCES

1. Santa Barbara. (2013). The Menstrual Cycle – University of California.
   Available from http://www.soc.ucsb.edu/sexinfo/article/menstrual-cycle/html
2. Tempel R. (2001). PMS in the workplace. An occupational health nurse's guide to premenstrual syndrome.
   AAOHN J. 49(2):72-8.
3. Nisar N, Zehra N, Haider G, Munir AA, Sohoo NA.(2006). Frequency, intensity and impact of premenstrual syndrome. J coll Physician Surg Pak.18(8), 567-72. Available from <http://www.ncbi.nlm.nih. gov/pubmed/18798584/html>.
4. Derman Orhan, Nuray Oksuz, Kanbur Tulay, Erdogan Tokur, Tezer Kutluk.(2004). Premenstrual syndrome and associated symptoms. European Journal of Obstetrics & Gynaecology and Reproductive Biology. 116(2): 83-86. Available from<http://www.sciencedirect.com/science/article/pii/S030121150 400243X/html>.