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PREVALENCE OF MOST FREQUENT SYMPTOMS EXPERIENCED BY COLLEGE GOING GIRLS IN PREMENSTRUAL SYNDROME.

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Abstract: Menstruation is termed as a normal physiological process in every female's life. Menstruation is uterine bleeding for an average of 3-5 days every 28 days from puberty until menopause. It is a series of natural changes in a female body that occur due to hormonal influence. During the menses, there are some physiological, psychological and behavioral changes in women and sometimes, they are severe enough to affect the lifestyle and quality of life of women. This is termed Premenstrual Syndrome. Women between the age of 14 to 50 years experience PMS. This study was conducted in Pune city in Maharashtra, India to evaluate college going females undergoing PMS and the higher prevalence of symptoms seen in them using the Premenstrual Syndrome Scale. (PMSS).

***Keywords*- Community Health, Females, Menstruation, Premenstrual Syndrome, Prevalence, Physiotherapy.**

I. INTRODUCTION

Menstruation is termed as a physiological process that occurs every month in a female body due to uterine bleeding. The menstrual cycle on average occurs every 28 days and uterine bleeding occurs on an average for 3 to 5 days. In the menstrual cycle, there is hormonal changes and fluctuations, and also the thickening of the endometrium to prepare the female body for the probability of getting pregnant. The ovarian cycle is in charge of making and releasing of eggs and the making of estrogen and progesterone. The uterine cycle is in power of the making and conservation of the lining of the uterus to receive a fertilized egg.1 The follicle-stimulating hormones encourages the production of oocytes (immature egg cells). The hormone estrogen stimulates the uterus lining to thicken to accommodate an embryo should fertilization occur. If the grafting of the embryo does not happen, then the endometrium breaks down and the abundant blood supply to the endometrium which was there for the nourishment of the embryo is released. Triggered by falling progesterone levels, menstruation (periods) is the cyclic shedding of the endometrial lining and is a sign that the female has not conceived. Each cycle occurs based on events that occur in the ovary and the uterus (called the ovarian cycle or the uterine cycle) The ovarian cycle consists of the Follicular phase, Ovulation and Luteal phase. The uterine cycle consists of Menstrual, Proliferative and Secretory phases.

A change in mood, behavior, appearance of some symptoms is often noticed but, if the symptoms are severe enough to affect the lifestyle of the woman, it is termed as Premenstrual Syndrome (PMS). Somatic and affected symptoms may appear 5 days before the menstrual cycle. Affective symptoms are depression, anger outbursts, irritability, anxiety, confusion and social withdrawals. Somatic symptoms are breast tenderness, abdominal bloating, headache. The above symptoms are relieved within 4 days of onset of menses. PMS certainly seems to be associated with the Luteal phase of the cycle i.e. the phase during which progesterone is produced. Studies suggest that progesterone was deficient in the Luteal Phase in PMS patients. Women between the age of 14 to 50 years experience PMS. Premenstrual Syndrome is the primary reason why females miss work, school, college, etc and their ADLs are affected. Some women face severe symptoms and thus they may require medical care. On an average, probably 75% women say that they get PMS symptoms at some point in their lifetime. For most women, PMS symptoms are mild. Less than 5% of women of childbearing age get a more severe form of PMS, called premenstrual dysphoric disorder (PMDD) PMS stops after menopause when you no longer get a period. About 50% of the women who need relief from PMS also have another disorders, which may hamper the menses and the condition might get worse.

1.1 These health problems share many symptoms with PMS and include:

1.1.1 Depression and anxiety disorders. These are the most common conditions that coincide with PMS. Depression and anxiety symptoms are similar to PMS and may get worse prior or during the menses.

1.1.2 Myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS). Study suggest that women with ME/CFS may also be more likely to have menorrhagia and premature cessation of menses.

1.1.3 Irritable bowel syndrome (IBS). IBS causes cramping, bloating, and gas.

1.1.4 Bladder pain syndrome. Women with interstitial cystitis are more likely to have painful cramps during PMS.

1.1.5 PMS may also worsen some health problems, such as asthma, allergies, and migraines.

1.2 Causes of PMS: -

1.2.1 Cyclic changes in hormones: -
PMS may be caused due to hormonal fluctuations. It eventually decreases when the menses start or when the woman becomes pregnant.

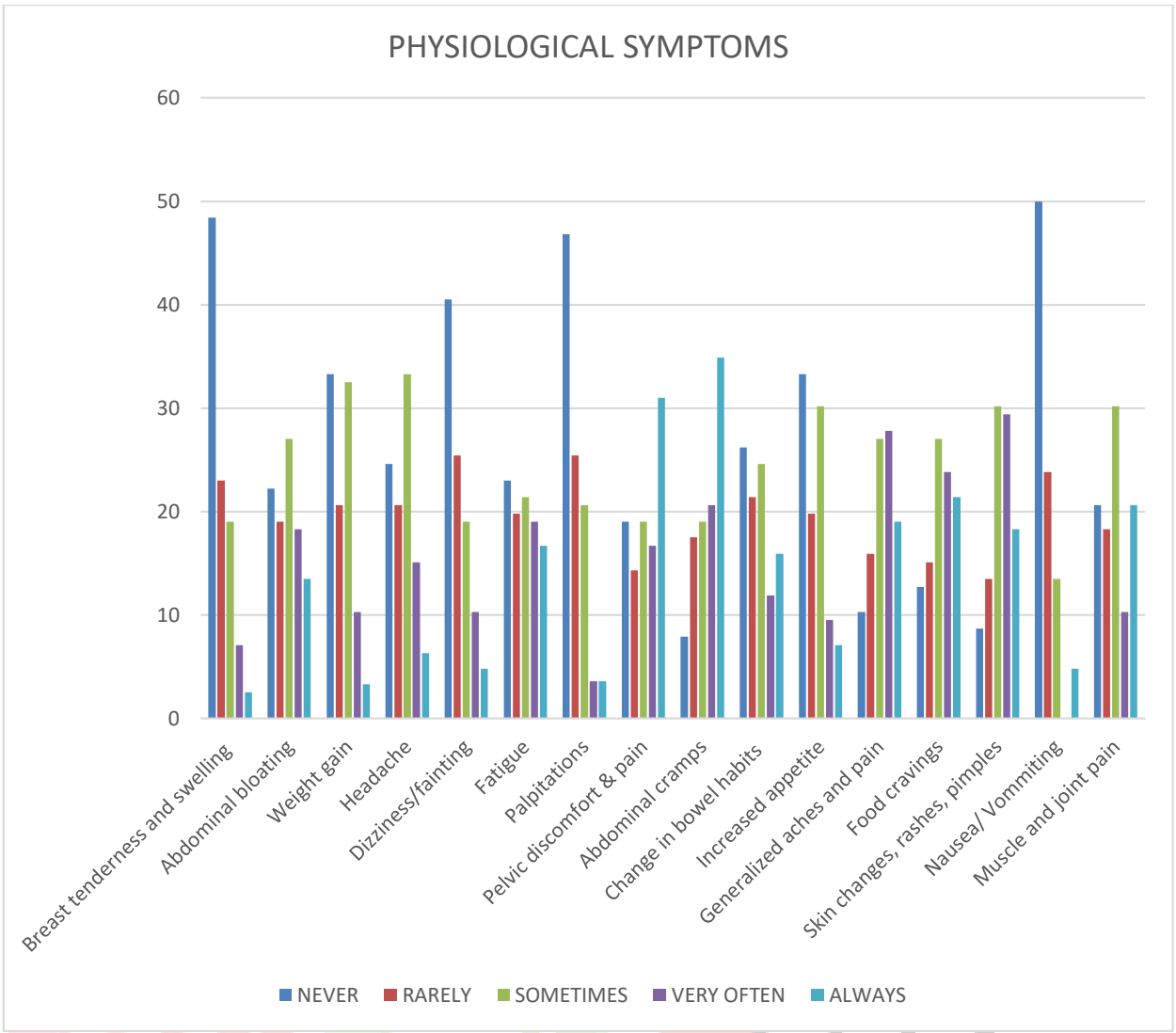
1.2.2 Chemical changes in the brain: -
Serotonin, a chemical neurotransmitter has fluctuations in its levels and is also responsible for mood swings. A decrease in Serotonin can lead to Premenstrual depression, fatigue, food cravings, insomnia, etc.

1.2.3 Depression: -
Some women with Premenstrual Syndrome may have undiagnosed depression, though depression alone is not responsible for mood fluctuations.

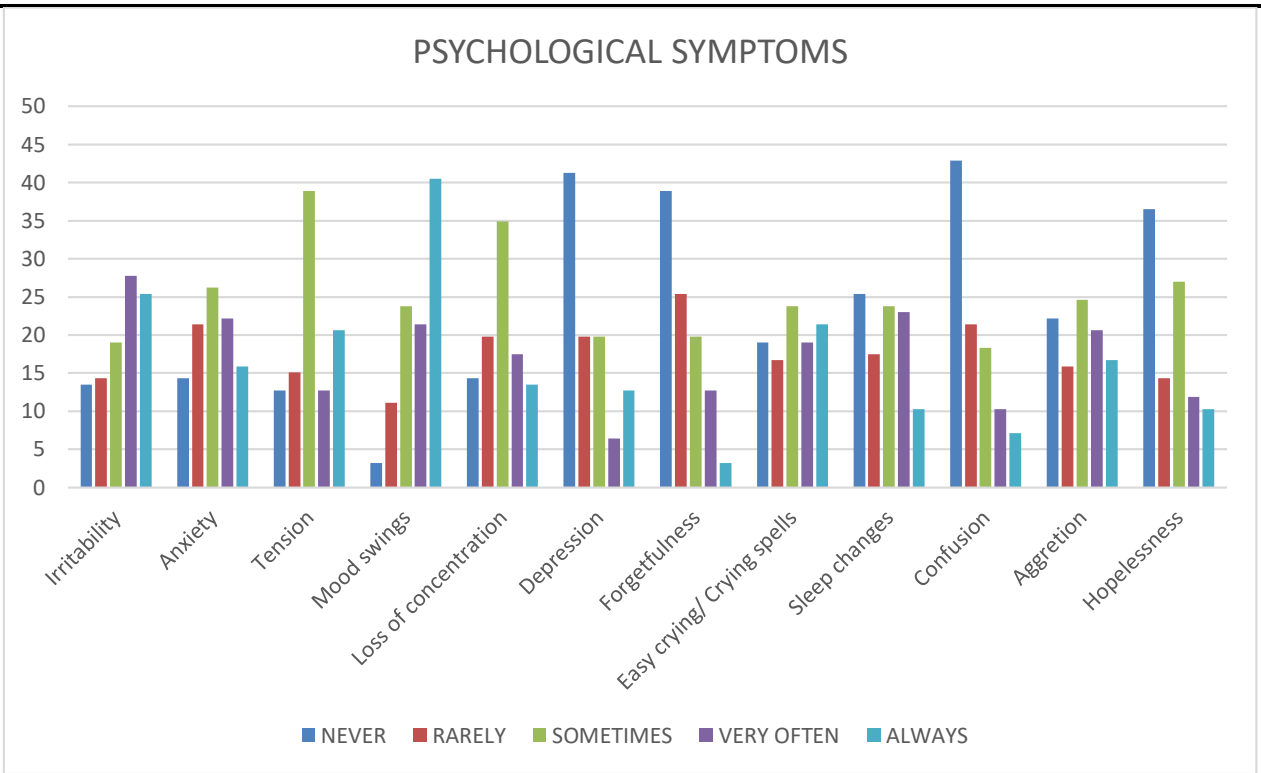
II. METHODOLOGY

Permission was taken from the institutional ethical committee. College going females of age between 18 to 25 years in Pune were requested for participation as a study sample. Participants were included according to the inclusion and exclusion criteria of the study. Consent forms were filled out by the subjects. The Premenstrual Syndrome scale (PMSS) was given to the subjects and they were asked to fill out the forms. And thus, the result was calculated based on the data collected. A sample population of 126 female participants was obtained via Google forms.

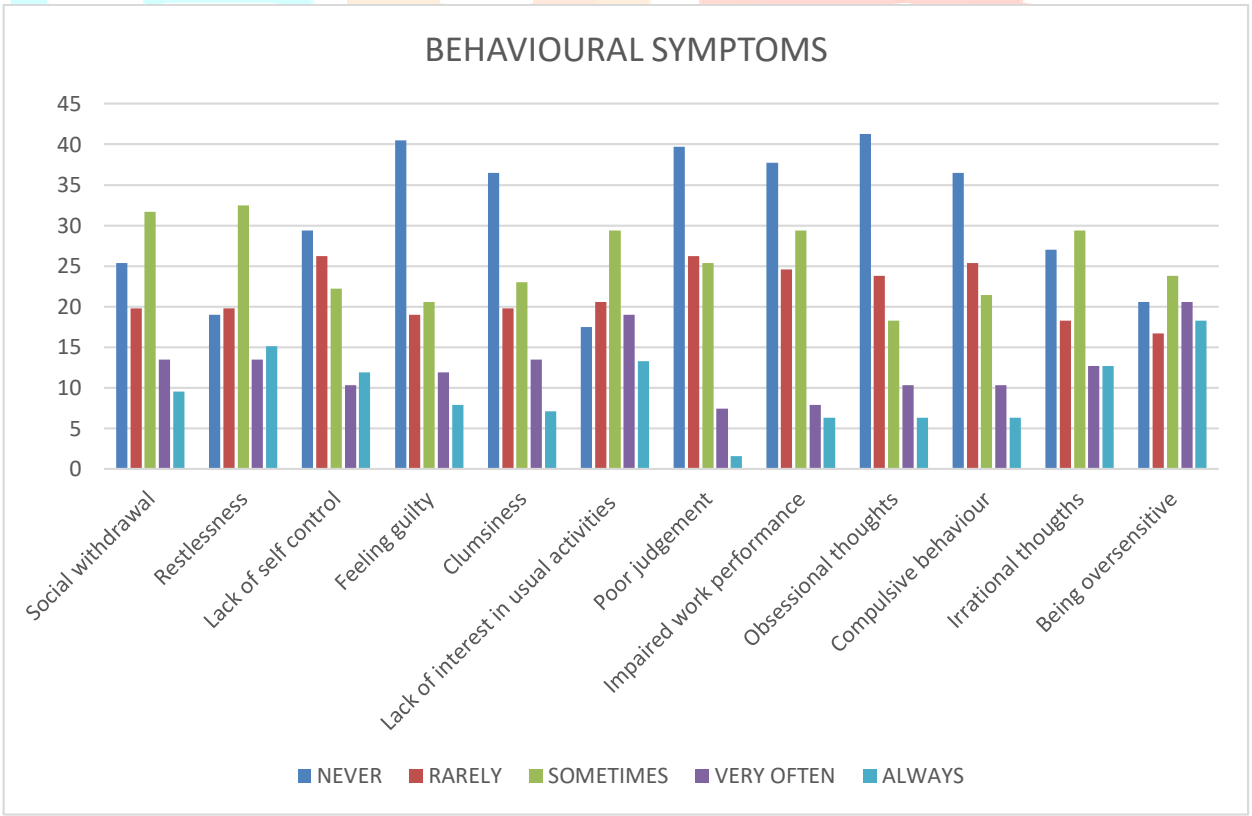
III. RESULT



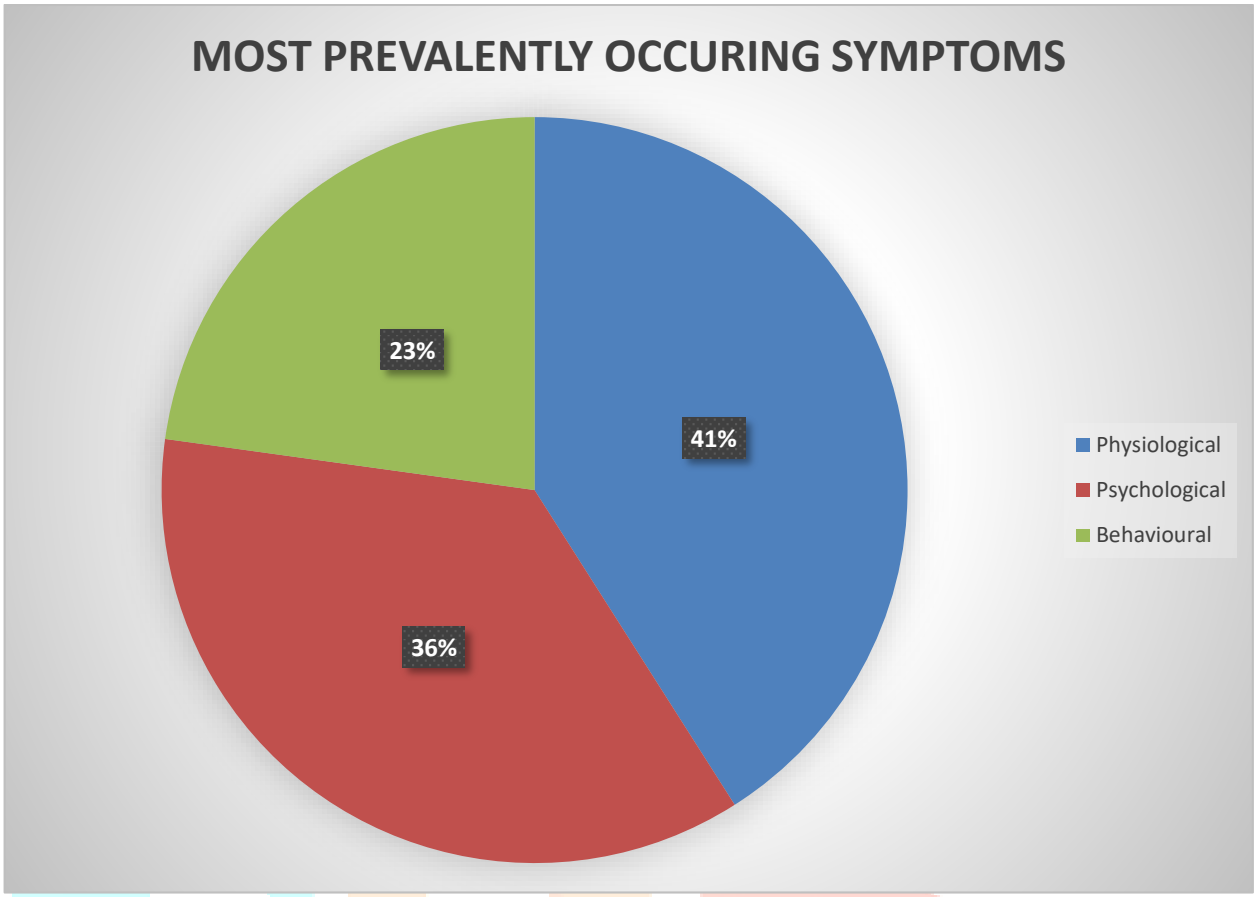
Graph 1:- Physiological symptoms of PMS in the sample population



Graph 2. Psychological symptoms of PMS in the sample population



Graph 3. Behavioral symptoms of PMS in the sample population



Graph 4:- Most prevalently occurring symptoms in PMS

Interpretation: The above graph shows that the physiological symptoms (41%) occur more prevalently than the psychological symptoms (36%) and behavioural symptoms (23%)

IV. DISCUSSION

The result of the study shows that out of the three categories of symptoms that are there in the PMS scale, the physiological symptoms occur more prevalently than the psychological symptoms and behavioral symptoms. When the final result was calculated, the prevalence of each category was as follows: physiological symptoms- 41%, psychological symptoms- 36% and behavioral symptoms- 23%. Breast tenderness, abdominal bloating, weight gain, headache, dizziness/ fainting, fatigue, palpitations, pelvic discomfort & pain, abdominal cramps, change in bowel habits, increased appetite, generalized aches and pain, food cravings, skin changes, rashes, pimples, nausea/ vomiting, muscle & joint pain are the physiological symptoms.

Menstruation is a physiological process that occurs in every female's life during her reproductive age. The menses begin at the age of 13 to 16 on average and the menses cease in the early or mid-fifties approximately. Thus, on average for 35 to 40 years of a woman's life having menses every month. Most women have premenstrual syndrome before their menses. If the symptoms are severe, then a woman's quality of life is hampered. Premenstrual syndrome symptoms may be seen 5 to 7 days before the menses arrive. The symptoms may be there until a couple of days after the menses begin. Thus, it affects the concentration of the women and also the college-going females face the issue at college as they miss their college due to lack of concentration and discomfort. There are 3 categories of symptoms that occur in premenstrual syndrome –

physiological symptoms, psychological symptoms and behavioral symptoms according to the premenstrual syndrome scale.

Our study focuses on the prevalence of symptoms that occur in college-going female students i.e., which one of the three categories of the PMS scale occurs more prevalently in them, the physiological symptoms, the psychological symptoms or the behavioral symptoms. The PMS symptoms according to the PMS scale has 40 symptoms i.e., 16 physiological symptoms, 12 psychological symptoms and 12 behavioral symptoms. A female population based on the study was carried out in which there were 126 participants. The age of the participants were included in this study was 18 to 25 years. Considering the study's inclusion and exclusion criteria, females were selected from the colleges of Pune city. The procedure, aims and objectives of the study were explained to the participants. Consent forms were filled out. The PMS scale was distributed to the participants using Google forms and their responses were recorded in the same.

The Google forms were saved as the responses from the participants. In the PMS scale, all the 40 symptoms were answered (tick marked) based on the intensity of each and every symptom that occurs to them in the PMS i.e. never, rarely, sometimes, very often, always. To calculate the result, firstly, the percentage of each of the 40 symptoms was calculated in the google forms itself. E.g. abdominal bloating: never- 22.2%, rarely- 19%, sometimes- 27%, very often- 18.3%, always- 13.5%. Then histogram of each of the three categories of the PMS Scale was taken and the percentage values of the respective symptoms were put in. Then as per the aim of the study, the average values of the most prevalent occurring symptoms were taken i.e. values of the always category results. Then a pie chart was made to show the final result. The values of percentage of physiological, psychological and behavioral symptoms were put in the pie chart.

In the study of Camy Bhagat, Paras Bhura 2016, did a descriptive study to assess the Premenstrual Syndrome and coping behaviour among women. It concluded from their findings that the majority of the students were having lower abdomen pain, backache, irritability, fluctuation of mood. A minority of students were having somatic symptoms like feelings of suffocation, chest pain, feeling of tingling sensation and ringing of the ear. The study conclusion states that to overcome PMS, the majority of students need to adopt healthy coping strategies for these problems. And they feel better after taking hot drinks. It is an accepted fact that menstruation is a normal physiological impact on each girl's life. The adolescent and younger age period of the girl is a crucial phase. In our culture, it is believed that girls should not express their feeling toward sexual aspects. Premenstrual syndrome is the primary reason women to miss work, school or college. Sometimes their symptoms are so severe that she needs medical care. Their study was conducted on 248 Women revealed that the majority 152 (61.28%) were of age group 21-30 years and majority 221 (89.11%) had menarche at 12-15 years of age, 163 (65.72%) had an interval of menstrual cycle between 28-30 days only 1 (0.40%) was having an irregular cycle, 186 (75%) had a duration of menstrual cycle 4-5 days. The majority of 197 (79.43%) students were having pain in the lower abdomen, 164 (66.12%) were having a backache, 160 (64.51%) were having irritability, 113 (45.05%) had pain in thighs & 73 (29.43%) had pain in the breast.

Nirav Vaghela, Daxa Mishra, and Vyoma Bharat Dani in their study compared the effects of aerobic exercise and yoga on Premenstrual syndrome. Efficacy of both aerobic exercise and yoga has been demonstrated in the literature among females with menstrual disorders; however, no study has compared the effectiveness of these two treatment modalities. Their study aimed to compare the effectiveness of aerobic exercise and yoga on PMS. A total of 72 patients with PMS participated in the present study, and the results revealed a significant reduction in pain intensity and PMS symptoms measured by VAS and PMSS, respectively, in both groups. Exercise helps to reduce and alter the stress level, thereby reducing sympathetic activity leading to a reduction in menstrual pain and other symptoms related to menstrual disorders. As stress and anxiety are proportionately related to the symptoms of PMS and menstrual pain, reduction in stress and anxiety with Yoga can significantly reduce menstrual pain and symptoms of PMS. Their study showed how beneficiary yoga and

aerobic exercises are for a woman to stay healthy and fit. Therefore, it might further reduce the chances of getting Premenstrual dysphoric disorder, which might deteriorate the condition of the woman more.

In the present study, we have got the final result that the physiological symptoms are more prevalently seen. That means further studies can be done where a study can be done based on interventions related to Physiotherapy management may be given out. If the study would have concluded that the psychological symptoms arise more prominently than the other two, then further management would have included the counselling of the women on how to control their psychological symptoms. The same with the fact that if the behavioural symptoms would have been more prevalently seen then the further management would have been that the interventions would be counselling based on the behavioural management of the women. A further study can be done to improvise the quality of life of the women whose lives have been hampered due to the physiological symptoms that they have been facing due to the Premenstrual Syndrome and thus giving out further Physiotherapy management/interventions.

V. CONCLUSION

The present study concluded that out of the three categories of the Premenstrual Syndrome scale, i.e., the physiological symptoms, the psychological symptoms and the behavioral symptoms; the physiological symptoms are more prevalently seen in college going girls than the psychological and behavioral symptoms.

VI. CONFLICT OF INTEREST

No conflict of interest is shown by the authors.

VII. ETHICAL APPROVAL

This study was conducted based on the guidelines from “The Declaration of Helsinki”. Hence ethical approval was not required.

VIII. REFERENCE

[1] Camy Bhagat, Paras Bhura. A DESCRIPTIVE STUDY TO ASSESS THE PREMENSTRUAL SYNDROME AND COPING BEHAVIOUR AMONG WOMEN.

[2] Vaghela N, Mishra D, Sheth M, Dani VB. To compare the effects of aerobic exercise and yoga on Premenstrual syndrome. Journal of education and health promotion. 2019;8.

[3] Vancouver:- Padmavathi MP, Sankar DR, Kokilavani DN, Dhanapal K, Ashok B.

[4] Validity and Reliability Study of Premenstrual Syndrome Scale (PMSS).

[5] International Journal of Advances in Nursing Management. 2014 Jan;2(1):4-10.

[6] Dickerson LM, Mazyck PJ, Hunter MH. Premenstrual syndrome. Am Fam Physician. 2003 Apr 15;67(8):1743-52. PMID: 12725453.

[7] Manal Ahmad Al-Batanony, Sultan Fahad AL-Nohair, Prevalence of Premenstrual Syndrome and Its Impact on Quality of Life among University Medical Students, Al Qassim University, KSA, *Public Health Research*, Vol. 4 No. 1, 2014, pp. 1-6. DOI: 10.5923/j.phr.20140401.01.

[8] Abu Alwafa R, Badrasawi M, Haj Hamad R. Prevalence of premenstrual syndrome and its association with psychosocial and lifestyle variables: a cross-sectional study from Palestine. BMC Women's Health. 2021 Jun 5;21(1):233. DOI: 10.1186/s12905-021-01374-6. PMID: 34090416; PMCID: PMC8178841.

[9] Seedhom AE, Kamel EG, Mohammed ES, Raouf NR. Predictors of Perceived Stress among Medical and Nonmedical College Students, Minia, Egypt. Int J Prev Med. 2019 Jun 7;10:107. DOI: 10.4103/ijpvm.IJPVM_6_18. PMID: 31360354; PMCID: PMC6592112.

[10] Buddhabunyakan N, Kaewrudee S, Chongsomchai C, Soontrapa S, Somboonporn W, Sothornwit J. Premenstrual syndrome (PMS) among high school students. *Int J Women's Health*. 2017;9:501-505 https://doi.org/10.2147/IJWH.S140679

[11] Del Mar Fernández M, Regueira-Méndez C, Takkouche B. Psychological factors and premenstrual syndrome: A Spanish case-control study. PLoS One. 2019 Mar 6;14(3):e0212557. doi: 10.1371/journal.pone.0212557. PMID: 30840651; PMCID: PMC6402625.