

Premenstrual Syndrome in Female Physiotherapy Students and Its Effects on Life Quality

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ABSTRACT

Premenstrual Syndrome (PMS) is a common condition affecting many women. It includes various physical and emotional symptoms occurring before menstruation. This study explores how PMS affects the quality of life among female physiotherapy students.

Introduction: Premenstrual Syndrome (PMS) is a widely recognized condition that can significantly impact the lives of many women during their reproductive years. It encompasses a range of physical and emotional symptoms that typically manifest in the two weeks leading up to menstruation.

These symptoms can vary in severity and often disrupt daily routines and overall well-being. This study aims to understand how PMS impacts the quality of life of female physiotherapy students.

Methodology: A survey of 135 female physiotherapy students, having age between 18 to 26 years, was conducted using premenstrual syndrome scale and WHOQOL-BREF. Participants were selected according to inclusion criteria and were made to fill google form questionnaires.

Results: The data examination was performed with Microsoft Excel 2021. Out of 135 female physiotherapy students. The percentage of self-reported quality of life in study population was 72.59%.

Conclusion: The quality of life in female physiotherapy students was affected.

Keywords: Premenstrual syndrome, female physiotherapy students, life quality

INTRODUCTION

Premenstrual syndrome, or PMS, is prevalent in women and has been linked to mental health issues in adolescent girls and women. A group of recurring mental or physical symptoms that arise during the luteal phase of the menstrual cycle are referred to as PMS. It begins roughly a week before bleeding and ends two to four days after.[1]

A broad range of physiological and psychological indicators, including as exhaustion, bloating in the abdomen,

soreness in the breast, acne, changes in appetite, food cravings, sleeplessness, anxiety, irritability, rage, melancholy, and mood swings, have been linked to PMS.[2]

Numerous studies have discovered that women's academic and professional performance may be adversely affected by PMS and PMDD. Despite earlier research conducted in Nepal have talked about the frequency and effects of premenstrual disorders in medical students, but they haven't addressed the ways in which

students are trying to manage their symptoms through treatment.

Medical students sometimes overlook the potential negative effects of premenstrual symptoms on their quality of life because they are too busy with their studies and ward chores to take time off. Consequently, this study is to assess the impact, severity, and prevalence of PMS and PMDD among Nepalese medical students, as well as the various treatment options used by the students to manage these symptoms in conjunction with their health-seeking behavior.

According to epidemiological surveys, between 80 and 90 percent of women have PMS symptoms, and 5 percent have severe symptoms that prevent them from going about their daily lives.

Both nonpharmacological and pharmacological therapy approaches are utilized to lessen premenstrual symptoms. It is more crucial to provide correct and appropriate information before and after menarchy and to make the required adjustments in the individuals' lifestyles before starting the first pharmaceutical treatment to manage PMS symptoms [10,11].

The problem can be positively impacted by changing eating habits, controlling weight, managing stress, and developing and keeping an exercise routine. The individual's willingness to assume personal responsibility and engage in their own treatment is crucial in mitigating or preventing premenstrual symptoms. [12]

THE GOAL OF THE RESEARCH

The aim of this study is to ascertain the prevalence of PMS among college students and the variables that influence PMS.

MATERIALS & METHODS

A cross-sectional observational study was conducted among female physiotherapy students in Ahmedabad, Gujarat, India. A sum of 135 responses were acquired using the purposeful sampling approach, with subjects having an age group between 18

and 26 years old and being included based on inclusion and exclusion criteria. Approval from the institutional ethical panel was attained. Data was collected via an online questionnaire created with Google Forms, and analysis was carried out using Microsoft Excel 2021. Data was collected over a one month period, from October 1 to October 31, 2023. Participants in the study consisted

in age from 18 to 26 years female physiotherapy students. The questionnaire was divided into three sections: the first included demographic information such as name, age, height, and gender, as well as additional questions to assure they were free of any chronic conditions. Premenstrual syndrome Scale was used in the second section and WHOQOL-BRIEF Scale was used in the third section.

INCLUSION CRITERIA

- Age - 18 to 26 years
- Gender - Female physiotherapy students
- Willing to participate in study

EXCLUSION CRITERIA

- Pregnant women
- Medical conditions like anemia, thyroid disorders, heart disease, diabetes, etc.
- Any incomplete survey forms were eliminated.

OUTCOME MEASURE:

1. PREMENSTRUAL SYNDROME SCALE

The premenstrual syndrome scale comprised 40 questions with three sub-scales (Physiological, Psychological and Behavioural symptoms). This 5-point Likert-type scale consisting of 40 items. The measurements on the scale are set according to the following scoring system: the response Never was scored as "1", rarely as "2", sometimes as "3", very often as "4" and always as "5" points. In addition, the total score obtained from the sub-scales established the "PMSS total score." The scale's lowest score is 40 and highest score

is 200. If the scale's total score reached 80 points or above, this indicates the occurrence of PMS. Increases in the scores indicate an increase in PMS severity.[16]

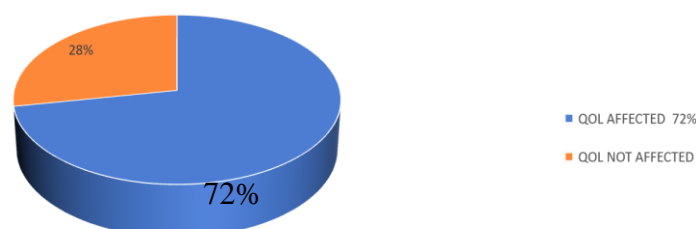
2. WHOQOL- BRIEF SCALE:

WHOQOL-BRIEF (WHOQOL-short Form): The World Health Organization started to define the life quality and developed WHOQOL-100 scale that allows for the cross-cultural comparisons by the contribution of 15 centers from various countries in 1980. WHOQOL-BRIEF (WHOQOL-short Form) was created with 27 questions selected from WHOQOL-100 and consisting of four areas namely general health, physical health, psychological health, social relations and environmental area. WHOQOL-BRIEF was translated into Turkish language by Eser et al. In WHOQOL-BRIEF-TR used in this study, there are 4 choices scored from 1 to 5 for 27 questions. The test has a calculation method determined by WHO. The scores vary between 0 and 100. The questions are answered in consideration of the last 15 days. The higher scores indicate that the life quality level is high. Physical area: Through the questions no. 3, 4, 10, 15, 16, 17 and 18 in this area, the ability to perform daily activities, addiction to drugs and treatments, liveliness and fatigue, mobility, pain and disorder, sleep and resting and power to work are analyzed, respectively. Psychological area: Through the questions no. 5, 6, 7, 11, 19 and 26 in this area, body image and external appearance, negative

emotions, self-respect, positive emotions, spirituality/religion/personal beliefs and thinking/learning/memory/concentration are analyzed, respectively. Environmental area: Through the questions no. 8, 9, 12, 13, 14, 23, 24 and 25 in this area, the material resources, physical security and safety, medical services and social benefits, availability and qualification, home environment, new information and skill acquisition opportunities, listening and recreation opportunities and ability to take part in recreation, physical environment (pollution/noise/traffic/climate) and transportation are analyzed, respectively. Social area: Through the questions no. 20, 21 and 22 in this area, the relationships with other people, social support and sexual life are analyzed. In the evaluation, the questions no. 3, 4, 26 and 27 with negative scoring are made positive and reversed. The first two question the scale including the life quality and general health problems are general questions; the scores of these questions are not added to the lower dimension scores, but evaluated separately.[17]

RESULT

The result was carried out with Microsoft Excel 2021. There were 135 subjects in the sample size: The mean age was estimated to be 20.70 years. The research population's self-reported PMSS was 144.72 and QOL 43.27.



DISCUSSION

the present study was to assess the premenstrual syndrome symptoms and life quality in female physiotherapy students in Ahmedabad city and result shows that the 72% of female physiotherapy students quality of life is affected. We assess the premenstrual syndrome and quality of life measure by PMSS (premenstrual syndrome scale) and QOL- BRIEF (quality of life)

The World Health Organization conducted a study in 1981 on almost 5000 women from four distinct ethnic groups. The study indicated that between 23% and 70% of the women in all cultures had altered negative affection, and between 55% and 70% of the women had premenstrual physical illnesses [17]. 92% of people with PMS reported having affectionate physical alterations, according to a retrospective study conducted in Sweden. A study conducted in the United States of America revealed that 29% of black women and 31% of white women had at least one premenstrual symptom. In contrast, at least one unfavorable symptom was observed in another USA investigation. Upon reviewing the studies conducted in our nation to determine PMS, the variations in the outcomes truly grab our attention. Demir et al. [21] discovered a 90% PMS rate in the 15–49 year old age range. 62.5% of the women had PMS, according to Yucel et al. [15], Karavus et al. In a study involving 406 female students from Marmara University, Canbaz et al., [22] discovered a 17.2% prevalence of PMS. In a study conducted on 397 female students enrolled in Ondokuz Mayıs University's first semester, [23] discovered that the frequency of PMS was 58.2%.

Research conducted recently in several cultures has demonstrated the importance of social and cultural influences, activity status, and stress in the development of PMS [16–18]. A study that has been conducted indicates that the most common premenstrual symptoms are hot flashes (29.9%), chest pain, sensitivity (25.1%), and stomach edema (22.4%). [11]. In Musal et

al.'s research [27], the rates are different, but the order remains the same: the most common symptoms are anxiety (80.7%), boredom (68.2%), stomach pain/cramps (67.6%), exhaustion (65.3%), and tension-swelling of the stomach (63.0%); the least common ones are hands/foot swelling (18.2%) and weight gain (16.4%) In another study, angry and depressed traits [25]. The most common PMS symptoms, according to our study's analysis of symptom frequency, are low back pain (76.4%), stress-discomfort (78.2%), anxiety and anger (78.6%), stomach edema (79.3%), and breast pain sensitivity (78.5%). As may be observed, the symptom frequencies vary. from one study to the next, although the order of the common symptoms is consistent the most frequent symptoms are physical discomfort, fatigue, many women who have PMS also have dysmenorrhea, and when the menstrual cycle begins, dysmenorrhea takes the place of premenstrual symptoms [27–30].

This circumstance is supported by the study's findings. Dysmenorrhea and PMS have a beneficial relationship [12, 31–34]. Our study yielded comparable findings. furthermore. Furthermore, studies conducted by Rupani and Lema and Freeman et al. revealed no connection between dysmenorrhea and PMS [35,36].

It is known that the relaxation techniques are effective in reducing the premenstrual complaints. These relaxation techniques include breathing exercises, biofeedback technique, naprapathy and meditation [1,3]. Yoga eases tense muscles, eases back pain, promotes regular breathing, controls blood flow, and lessens tension. Exercise is advised for women who have premenstrual symptoms in order to boost blood circulation and both to increase core muscular strength and flexibility. Furthermore, women with premenstrual problems may benefit from standing and sitting activities [39]. Frequent exercise guarantees fluid retention, symptom reduction, and emotional recovery [3].

According to our research, people who frequently exercise experience fewer PMS episodes, however this difference is not statistically significant ($p > 0.05$). A comparable result was attained in the research conducted by Demir et al. [21] However, the study conducted by Lustyk et al. [40] revealed that exercise had a direct impact on stress and life quality, but not on PMS.

One of the risk factors that makes PMS worse is alcohol. According to Nyberg et al. [4], women who drink more alcohol are more likely to have PMS. According to our research, PMS frequency rises with alcohol consumption. A rise in consumption ($p < 0.05$). Premenstrual symptoms are more common in people who smoke more than four cigarettes a day, according to Cohen et al. [37] [25]. Studies have shown that individuals who smoke regularly have heavier PMS [21, 25, 41, 42]. Because smoking affects the levels of gonadotrophin, estrogen, progesterone, and androgens, it can exacerbate PMS. Because of this, it is advised to limit smoking in order to help manage PMS symptoms [43, 44]. According to our research, the frequency of PMS rises with smoking

According to current research, there is a correlation between the intensity of PMS and coffee consumption [32]. Caffeine is a stimulant that raises tension, irritation, and emotional lability, which explains why [1]. According to the study, people who drink more coffee experience PMS far more frequently.[27]. Our research revealed that individuals who drink more coffee have a higher prevalence of PMS ($p < 0.05$). Demir et al.'s study [21] indicated that while coffee consumption increases are associated with an increase in PMS frequency, the difference was not determined to be statistically significant ($p > 0.05$).

In our investigation, we discovered that 36.4% of the salt was added without the dish being tasted. There was no discernible correlation ($p > 0.05$) between the amount of salt added and the frequency of PMS. Another survey found that thirty percent of

kids use salt.in the absence of food taste [21]. It has been suggested that creating support networks, learning how to control one's anger, stress-reduction techniques, exercise regimens, and maintaining a regular, healthy diet may be more effective than seeking medical attention for PMS symptoms [44]. Certain studies have reported a reduction in PMS complaints with physical exercise [27, 41, 42]. It is well known that women typically take diuretics and analgesics to treat these problems [44]. In our research, 84.1% of the kids had a BMI that was "normal," 8.2% had a low BMI, and 7.6% had a high BMI. There was no significant correlation between the two, even though the PMS rate dropped in the group whose BMI was within normal ranges ($p > 0.05$). Within the According to other research, the incidence of PMS increased with rising BMI [1,14,21, 25]

It is well known that PMS, which is highly prevalent in the society, has an impact on women's productivity, family relationships, social lives, performances, business affairs, and self-confidence in addition to adolescent girls' success and quality of life [28]. The life quality of women who have frequent PMS complaints is much lower, according to research by Lustyk et al. [40]. as opposed to the women who have marginal experience. There was no discernible difference [21] between the frequency of PMS and the lower measures of life quality in the study by Demir et al. ($p > 0.05$).

The same study discovered that students' average PMS score was 145.12 ± 22.963 . The life quality scale's lower dimension score average was determined to be 57.970 ± 15.501 . Regarding physical well-being, the scores were 46.990 ± 18.840 for psychological health, 53.440 ± 19.751 for social relations, and 53.050 ± 16.063 for the environment. Table 2 displays the average score for the lower components of the life quality scale in our study. The scores for physical health were 815.71 ± 4.74 , psychological health was 76.63 ± 6.35 , social relations were 73.12 ± 6.73 , and

environmental area was 68.85 ± 9.34 . Following analysis, it was shown that there was a correlation between the students' life quality scale score averages and PMS score averages.

CONCLUSION

The research's findings indicate that PMS plays a significant role in young people's maturation processes, which include experiencing physical and psychological variations. Students who experience PMS at a significantly elevated level have negative effects on their quality of life. In order to overcome the issues related to PMS and to understand that this is a normal state of affairs, students must acquire professional assistance. The knowledge of young people about the issue and their information source will ensure fundamental data for the responses or activities for the elimination of premenstrual problems. This will help to understand the problems faced by young people during the PMS period and the strategies for coping with these problems.

Declaration by Authors

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