

PREMENSTRUAL SYNDROME AMONG FOREIGN AND RUSSIAN STUDENTS

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Abstract. *Premenstrual syndrome (PMS) is distressing psychological, physical and behavioural symptoms during the late luteal phase of menstrual cycle [1, 2, 3]. This study is to determine the frequency of PMS among Foreign and Russian students and understand symptoms with Ayurvedic classification (Vata, Pitta and Kapha type of dosha) [4]. A cross-sectional randomized comparative study in two parallel groups was conducted on students of Altai State Medical University (ASMU), Barnaul, Russia. Data were collected using PMS questionnaire. Participants were 213 adult university students aged 20-25 years. I group (n=61) Foreign students, II group (n=152) Russian students. PMS was never experienced by less than 2% of foreigners and 22% of Russians. ($P = <0.001$). Around 18% of foreigners and 6.5% of Russians have PMS on a regular basis or always ($P = 0.025$). Foreign students are more likely to exhibit symptoms of PMS due to a variety of circumstances such as stress, loneliness or home sickness, and poor accommodation- as the majority of them reside in hostels [5]. The majority of these girls, 65.6% of foreigners and 60% of Russians, had never seen a gynecologist. In both groups, Ayurvedic herbal medicine can be utilized as an alternate non-hormonal treatment [4].*

Keywords: *Premenstrual Syndrome (PMS); Ayurveda; Stress; Foreign students; Russian students; home sickness.*

Introduction

Premenstrual syndrome (PMS) is a set of uncomfortable psychological, physical, and behavioural symptoms that occur during the late luteal phase of the

menstrual cycle, including mood swings, breast tenderness, food cravings, fatigue, irritability, and depression [1, 2, 3]. PMS affects 3 out of every 4 menstrual women, with severe cases affecting 3-8% of women. Women's quality of life is significantly impacted; 86% of patients have considered suicide, with 30% having tried suicide at least once. PMS was observed in a patient who had a history of postpartum depression [5, 6]. Pathogenesis ideas vary (gonadal steroid fluctuations- estradiol and progesterone drop, serotonergic dysregulation, decreased allopregnanolone levels, opioid inhibition- beta-endorphin, and so on) [2].

Traditional classification – Core PMD, Variants of PMS like Premenstrual exacerbation, PMD due to non-ovulatory ovarian activity, Progestogen induced PMD, PMD with absent menstruation. **Russian classification** – affective PMS, edematous PMS, cephalgic PMS, cyclic syndrome of panic attack, atypical PMS. **Tx:** lifestyle modification with counselling, diet modification, exercise. Medical management with Hormonal contraceptives, anti-depressants, Nonsteroidal anti-inflammatory drugs (NSAIDs) [7].

Ayurvedic classification and treatment according to Doshas (problems) [4], **VATA**-type: backache, anxiety, sleeplessness, fear, and mood swings. **Tx:** Drink dashamoola tea BID or 1 tablespoon Aloe Vera gel + pinch of black pepper TID before food. **PITTA**-type: hot flashes, urethritis, hives, irritability, and burning feeling when passing urine. **Tx:** Sukumara grutham 1 teaspoon full, in empty stomach (mornings) or Aloe-Vera gel (1 tablespoon) + pinch of cumin powder. **KAPHA**-type: breasts swelling and tenderness, tiredness, nausea and vomit before period. **Tx:** 10 cherries daily on an empty stomach before PMS period or 1 tablespoon aloe-vera gel + pinch of trikatu (black pepper, pippali and ginger). Regular **Yoga** practice can help women achieve physical and mental relaxation leading decreasing in PMS severity [8].

Objective

To determine the frequency of premenstrual syndrome among Russian and Foreign students and to compare the symptoms with traditional and Ayurvedic classification.

Methods

Prospective randomized comparative study in two parallel groups were made. (cross sectional study in Altai State Medical University (ASMU). Data were collected with the help of google questionnaires (on PMS). Participants were 213 adult university student aged 20-25 years. I group (n=61) Foreign students, II group (n=152) Russian students. Premenstrual Syndrome Questionnaire was used. T-test, Chi-square test were used for to analyze the date.

Results and Discussion

The majority of the students were between 20 and 25 years.

Most of foreigners were from India (68%), Egypt (29%), others (3%). Around 85% of Russians are from Altai territory, Tuva region (3.9%), Kemerovo region (3.9%), Altai Republic (3.28%) and Kazakhstan (3.28%). The Hostel is home to 62.3% foreigners and 14.5% Russians ($P = <0.001$). 36.2% Russians Students do both study and work, only 3.2% foreigners ($P = <0.001$).

Somatic diseases between both groups, 28% foreign students, 5.9% Russians have Anaemia ($P = <0.001$). Menarche began much sooner in Russians than in Foreigners.

We compared PMS symptoms with Ayurvedic classification,

PMS frequency was never experienced by less than 2% of foreigners and 22% of Russians. ($P = <0.001$). Around 18% of foreigners and 6.5% of Russians have PMS on a regular basis or always ($P = 0.025$) (Fig. 1).

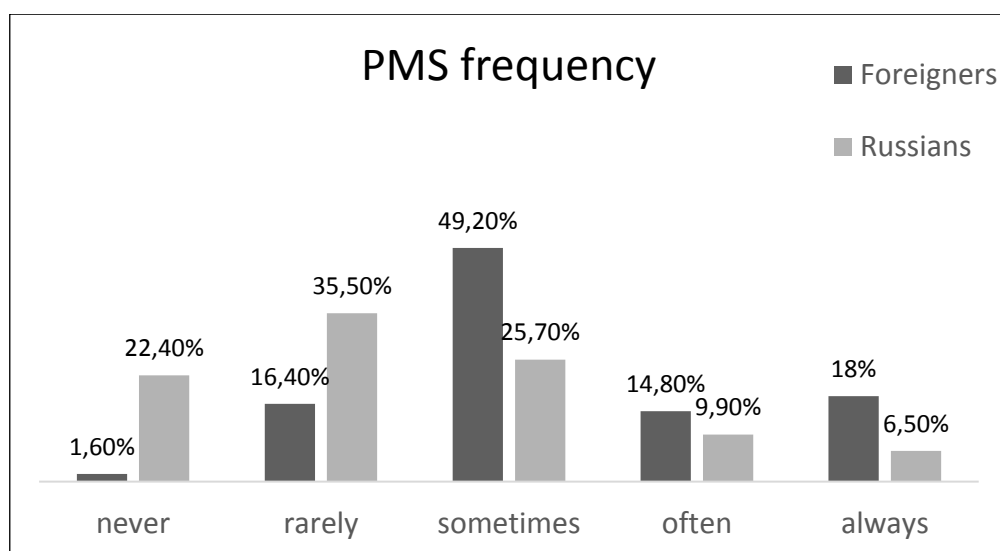


Figure 1. PMS frequency

Mood swings (VATA type of dosha) was never experienced by 19.7% of foreigners and 31% of Russians. And 31% of foreigners and 7.2% of Russians have PMS on a regular basis or always (Fig. 2)

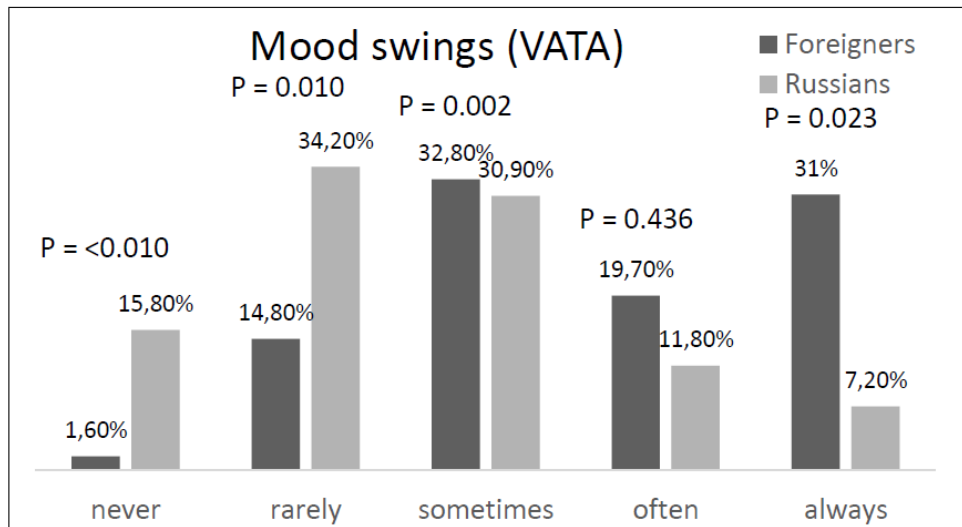


Figure 2. Mood swings (such as suddenly feeling sad or angry) VATA type

Limiting ability to focus on daily activities (VATA+KAPHA+PITTA type of dosha) was never experienced by 8.2% of foreigners and 34% of Russians. Furthermore, 16.4% of foreigners and 5.2% of Russians reported difficulty concentrating during PMS always (Fig. 3).

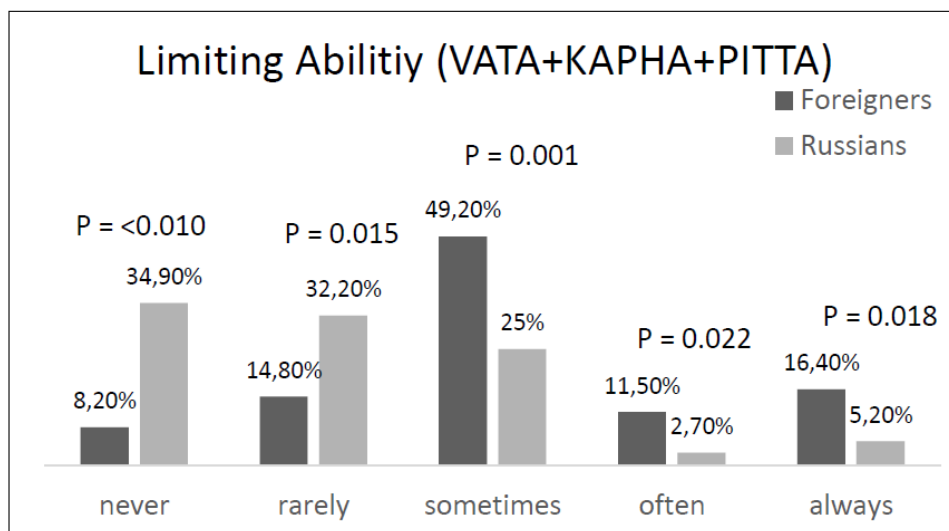


Figure 3. Limiting ability to focus on daily activities (VATA+KAPHA+PITTA type)

Becoming tense and restlessness (VATA+KAPHA type of dosha) was never experienced by 9.8% of foreigners and 16.4% of Russians. Furthermore, 19.7% of foreigners and 5.9% of Russians were always tensed during PMS.

The majority of these girls, 65.6% of foreigners and 60% of Russians, had never seen a gynaecologist.

Conclusion

Menstruation began at early age in Russian students than foreign students, which can be linked to eating habits (more high cholesterol products), harsh weather, genetics and lifestyle. Foreign and Russian students have different places of residence, majority of foreigners live in hostels. Foreign students have reported increased PMS symptoms such as mood swings, difficulty in focusing, and feeling tense tense due to several factors including stress, loneliness, home sickness, poor living conditions- the majority of them live in hostels. The leading PMS symptom is Mood swings, it is VATA type of dosha.

In both groups, Ayurvedic herbal medicine can be utilized as an alternate non-hormonal treatment. Further studies should to be conducted on PMS to verify the effectiveness of ayurvedic treatment and causes on PMS in different countries, triggering factors, etc.

References

- 1.Goswami N., Upadhyay K., Briggs P., Osborn E. and Panay, N. (2023), Premenstrual disorders including premenstrual syndrome and premenstrual dysphoric disorder. *Obstet Gynecol*, 25: 38-46. <https://doi.org/10.1111/tog.12848>.
- 2.Gudipally PR, Sharma GK. Premenstrual Syndrome. In: StatPearls. Treasure Island (FL): StatPearls Publishing; July 18, 2022.
- 3.Dutta A., & Sharma A. (2021). Prevalence of premenstrual syndrome and premenstrual dysphoric disorder in India: A systematic review and meta-analysis. *Health promotion perspectives*, 11(2), 161–170. <https://doi.org/10.34172/hpp.2021.20>
4. Anisha A. (2023). Ayurvedic management of Premenstrual Syndrome - A Case Study. *Journal of Ayurveda and Integrated Medical Sciences*, 8(1), 207 – 212.

5. Kim H. R. & Kim E. J. (2021). Factors Associated with Mental Health among International Students during the COVID-19 Pandemic in South Korea. *International journal of environmental research and public health*, 18(21), 11381. <https://doi.org/10.3390/ijerph182111381>

6. Yücesoy H. & Erbi LN. (2022). Relationship of premenstrual syndrome with postpartum depression and mother-infant bonding. *Perspectives in psychiatric care*, 58(3), 1112–1120. <https://doi.org/10.1111/ppc.12909>

7. Reid R.L. Premenstrual Dysphoric Disorder (Formerly Premenstrual Syndrome). In K. R. Feingold (Eds.) et. al., *Endotext*. MDText.com, Inc. 2017

8. Chang H.C., Cheng Y.C., Yang C.H., Tzeng Y.L., & Chen C.H. (2023). Effects of Yoga for Coping with Premenstrual Symptoms in Taiwan-A Cluster Randomized Study. *Healthcare* (Basel, Switzerland), 11(8), 1193. <https://doi.org/10.3390/healthcare11081193>

Как цитировать:

Ashwathappa M., Dmitrienko K. V. Premenstrual syndrome among foreign and russian students. Материалы IX итоговой конференции НОМУИС. Барнаул. Scientist. 2023; 4 (26): 141-146.
