

**INVESTIGATING THE DIFFERENT FORMS OF PREMENSTRUAL SYNDROME
IN KURSK INTERNATIONAL AND RUSSIAN STUDENTS**

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Relevance. Premenstrual Syndrome (PMS) is a combination of physical and mental symptoms that occur just before menstrual cycle [1]. PMS is reported in around 34% of female university students in China, 40% in Taiwan, 65% in Egypt, 79% in Japan, and up to 92% in Turkey [2]. This geographical variation in the prevalence of PMS may be attributable to differences in genetic, dietary, and lifestyle factors among the young adult females examined. There are four types of PMS can be classified: PMS-A (anxiety), PMS-C (cravings), PMS-D (depression) and PMS-H (hydration), which includes weight gain, abdominal bloating, breast tenderness, swelling of extremities [4].

Purpose of the study: This literature aims to investigate the severity, prevalence and distribution of the different types of PMS as well as seasonal changes in symptom manifestation. It also aims to explore the influence that lifestyle has on PMS prevalence and severity among Kursk female students

Materials and research methods. 128 menstruating women filled out a cross-sectional study in the form of an online questionnaire with an age range of 18-34 average age of 22 years studying in Kursk from the following nations: Nigeria, India, Botswana, Malaysia, Zimbabwe, South Africa, Brazil, Russia, Maldives, Namibia, Thailand, Kenya, Ghana, Congo, Cameroon, Sri Lanka, Haiti, Ecuador, Zambia, China. The questionnaire contained questions on age, nationality, severity of symptoms, severity of pain, age of menarche, whether or not the subject has been diagnosed with Premenstrual Dysphoric Disorder before, changes in intensity of PMS symptoms over the years, what climatic season symptoms are more pronounced, frequency of physical activity engagement, changes in libido during premenstrual period, average daily sleeping hours, frequency of caffeine intake, frequency of smoking and drinking alcohol.

Research results. The prevalence of PMS was 84% (107), with 25% of them having the severe form. It was found in 82% of Africans and Caucasians, respectively, among the studied group, whereas 88% were Asians. From the data collected, 41(38%) had PMS type A, 28 (26%) participants had type H, 24 (22%) had type D, and 12(11%) had type C. Furthermore, PMS-A was the most common type among Africans and Asians, while PMS-H in Caucasians. Most of the students had worse PMS symptoms in winter, with 59(55%) indicating that. Winter often means spending more time indoors, moving less, and eating more [3]. Out of those with worse symptoms in winter, 25% had PMS-H, 29% had PMS-D, 14% while 32% had PMS-A. In summer, PMS-A was also the most frequently occurring, with 44%, while types H, C and D had 29%, 12% and 15% respectively. In autumn, PMS-A is predominant, with 63%. Moreover, all the subjects with worse PMS during spring had PMS-H. 67% of the students who smoke have severe PMS.

Approximately 92% of the students with PMS never smoke, and one of the students who smoke does not even have the syndrome. However, among those who did smoke, 67% had severe PMS. Nicotine has a negative effect on the neuro-circuits, therefore increasing the propensity of environmental stressors and worsening premenstrual symptoms. Smokers have a blunted HPA stress response, and the attenuated HPA response to stress predicts a shorter time to relapse [5]. The influence of physical exercise on PMS was also similar, as half of the participants indicated that they often engaged in physical activity, notwithstanding the high prevalence of the syndrome. Moreover, it will surprise you to know that 55% of those with severe forms of PMS often engaged in physical exercise, although most of them (61%) specified that physical exercise actually helps relieve their symptoms. Physical exercise was of

no aid in alleviating severe PMS symptoms in only 17% of them. Furthermore, it was observed that there was a weak association between severe PMS and high caffeine intake, as only 38% of students with severe form often took substances high in caffeine.

It was no surprise to record that 56.3% of the subjects usually had tenderness, 42.2% soreness and 39.1% heaviness just before the start of their menstrual cycles. The cause of this symptom is hormonal changes: more estrogen is made early in the cycle, and it peaks just before the middle of the cycle, which causes the enlargement of the breast duct. Furthermore, progesterone levels usually peak near the 21st day in an average 28-day cycle, thereby causing the growth of the breast lobules (the milk glands). This is why premenstrual breast swelling is either linked with PMS or Fibrocystic breast disease [5].

Conclusion. There is no significant racial disparity in the PMS rate of occurrence. The most common type of PMS among the students in Kursk is PMS type A, which is the most common among Africans and Asians. Most students in Kursk experience worse PMS in winter. Symptoms of PMS-A are most common in autumn, summer, and winter, while PMS-H is present in spring. Smoking and lack of physical exercise do not directly affect the occurrence of PMS, although it increases the severity of manifestation.

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