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THE FREQUENCY AND IMPACT OF PREMENSTRUAL SYNDROME ON THE QUALITY OF LIFE OF MEDICAL STUDENTS IN ALMATY

Abstract. Data on the frequency and severity of premenstrual syndrome (PMS) range from 30 to 95%. According to US statistics, 70 to 90% of US women of reproductive age experience some manifestations of PMS; severe forms are registered in 5-8% of women; every third woman has a decrease in her quality of life [1]. According to M. Steiner (2000), PMS is recorded in more than 75% of Canadian women [2], and in Japanese women this percentage reaches 95% with severe symptoms of PMS reported by 1.2% [3].

Some of recent studies have established a significant prevalence of PMS in young girls. N. Nisar (2008) in her study reports that 51% of students were diagnosed with PMS, 5.8% experienced premenstrual dysphoric disorder (PMDD) [4]. According to the study by G. Pinar (2011), the incidence of PMS among students was 72.1% [5].

Many women report that premenstrual symptoms have a significant negative impact on their daily lives, they experience deterioration of various social and individual functions, such as a reduced working capacity, social activity and family relationships, including the sexual sphere.

Keywords: premenstrual syndrome, quality of life, frequency and severity of premenstrual syndrome, premenstrual dysphoric disorder.

Introduction. “PMS” means premenstrual syndrome or premenstrual tension syndrome; a condition characterized by various cyclical repetitive symptoms (physical, emotional, behavioral and cognitive) that develop in the second phase of the menstrual cycle and disappear soon after the menstruation starts [6]. A number of studies discovered that Premenstrual syndrome develops more often in women engaged in mental case, rather than in patients who have autonomic dystonia syndrome, and 4 times more than in women with body weight deficiency.

The syndrome can appear under the influence of numerous factors summoned by physical or mental overstrain, professional problems, social insecurity, chronic emotional stress [7]. In the process of the influence of Premenstrual syndrome on the quality of life the following results were discovered: absenteeisms increase, labor of productivity decreases, the quality of professional activity descends.

The negative impact on social relations guides to aggravation in interpersonal relationships in workplace. In current research conducted by the students of a medical school at the University of Urmia (Iran) in 2014, Premenstrual syndrome was identified in 39.4% of cases. The estimation of the quality of life was below in more than half of the cases, especially in the psychotic and social components. The results of this study show that Premenstrual syndrome has negatively influence on some quality of domains of life.

Materials and methods of study. Within the framework of the research, an anonymous questionnaire survey was conducted among medical students of Almaty with the help of 2 questionnaires at the same time. The questionnaire on the detection of PMS was developed by researchers. The quality of life was assessed using the SF-36 questionnaire (The Short Form-36). SF-36 refers to non-specific questionnaires for assessing the quality of life; it is widely distributed in the US and European countries in conducting scientific researches. It can be used both in healthy and sick people and is the "gold" standard for a study of the quality of life. The questionnaire survey was conducted on a voluntary basis. The data obtained as a result of the questioning of 1,500 students using a specially developed and approved questionnaire was used as the material for the study. The design of the study met the criteria of a one-stage clinical study; the questioning was conducted for 2 months. The generated sampling included 2061 questionnaires, of which 561 questionnaires, which is 27.2%, were filled in incorrectly, many fields were empty, the quality of life items were not filled in correctly.

The results of the authors' research. The average age of the respondents was 24 ± 4.3 years. All the students included in the study were residents of the Republic of Kazakhstan. Living conditions were satisfactory for all students. 28.0% were married, and 54.0% of respondents had a sexual life. The structure of contraceptive methods used among sexually active respondents was as follows: 26.0 ± 5.2% of combined oral contraceptive pills; 48.1 ± 4.3% of condoms; 10.0 ± 5.7% of intrauterine devices; 15.9 ± 5.6% did not use any contraceptive methods. The lack of contraceptive methods among 15.9% of sexually active girls and low level of the use of effective modern methods of preventing unwanted pregnancies resulted in abortion in 13.0% of the respondents in the study group. Extragenital diseases were registered in the history of 38.8% students in the group with 3.3 different extragenital diseases for each student in the group.

The most frequent symptoms accompanying menstruation in the study group of students were irritability and bad mood in 58.0 ± 2.2% and 59.5 ± 2.2% of students, respectively. In 34.5 ± 2.1% of students irritability turned into aggressiveness. The abdominal bloating (41.0 ± 2.2%), nausea (20.0 ± 1.8%) and vomiting (11.0 ± 1.4%) were reported quite often. One of three students experienced breast engorgement and pain (32.5 ± 2.1% and 32.0 ± 2.1%, respectively). The respondents frequently reported headaches (30.5 ± 2.1%); less frequently they complained of chest pain (7.5 ± 1.2%) and changes in blood pressure (14.5 ± 1.6%). Severity of symptoms made 39.5% of students use painkillers to relieve pain. Poor performance, skipping classes during menstruation were reported by 34.5% of students. Despite the severity of symptoms during menstruation, absences from lessons, only 12.4% of students sought medical advice. The results of the study on PMS frequency demonstrated that 57.4 ± 1.6% of students did not experience any changes in their health status or had single symptoms, PMS was reported in 36.0 ± 2.14% of respondents, and the severest form was registered in 6.6 ± 1.11% (Table 1).

Table 1 – The Frequency of Premenstrual Syndrome and Premenstrual Dysphoric Disorder in Respondents of the Study Group

No symptoms or single symptoms of premenstrual syndrome		Premenstrual syndrome		Premenstrual dysphoric disorder	
abs	%	abs	%	abs	%
861	57.4±1.6	540	36.0±2.1	99	6.6±1.1

Our studies showed that the presence of extragenital diseases in students had a significant impact on the frequency of PMS and PMDD. Thus, the frequency of PMS in students with EGD was 63.9 ± 3.4%; this rate was 18.3 ± 4.83% (P <0.05) in healthy subjects without EGD (Table 2).

Statistically significant difference was also reported in the frequency of the severest form of PMDD. The EGD group demonstratedthe PMDD frequency of 12.8±2.3%; the no-EGD group demonstrated 2.6±0.9% (P <0.05).The frequency of PMDD according to the data of different authors may vary between 5.8% and 36.1% due to the fact that they did not take potential presence of extragenital diseasesinto consideration.