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PREVALENCE OF PREMENSTRUAL SYMPTOMS AND DYSMENORRHEA AMONG YOUNG FEMALE ADULTS

Introduction

Menstrual disturbances have a significant negative impact on the quality of life, especially on female adolescents in terms of health, social relationships, school or work activities and psychological status. The common types of menstrual disturbances include, premenstrual syndrome (PMS), dysmenorrhea and irregularities in the menstrual cycle of women of reproductive age [1]. Amongst them, premenstrual syndrome and dysmenorrhea comes on top due to its higher prevalence. PMS is a multifaceted condition characterized by a range of physical, emotional and behavioral symptoms experienced by females one or two weeks prior to menstruation. Dysmenorrhea is the painful menstruation [2]. PMS usually presents with at least one cognitive symptom (anxiety, depression, confusion or irritability) and one somatic symptom (abdominal bloating, headache, fatigue, breast tenderness, nausea and vomiting or weight gain) while dysmenorrhea occurs simultaneously with PMS. Most recently several studies have been conducted to investigate the prevalence of menstrual disturbances among young females; nevertheless, the variations in age and sociodemographic characteristics of the targeted populations resulted in wide variations in the prevalence [3, 4]. Although the etiology is unclear, several factors such as hormonal disturbances, vitamin deficiencies, certain dietary habits, lack of exercise, smoking, alcohol consumption have been identified to be contributory factors of menstrual disturbances.

Goal

To identify the main clinical manifestations of premenstrual syndrome in female adolescents.

Materials and methods of research

A cross-sectional study was conducted for collecting information. An online survey was prepared including multiple-choice and short paragraph questions on March 2025. Data regarding current age, anthropometric data (height, weight), age of menarche, presence or absence of dysmenorrhea, duration, onset, location, type of pain, pre-menstrual symptoms, any menstrual irregularities were recorded. Females aged between 18 and 35 years were invited by email for participation. Further, an in-depth literature search was conducted in PubMed, ResearchGate, Academia and other databases using keywords such as «menstruation disturbances», «menstrual disorders», «menstrual irregularity», «premenstrual syndrome», «dysmenorrhea» to assess information regarding menstrual disorders. The data was then analyzed to obtain a final conclusion. Other statistics and data for the article were from the relevant resources (see References below).

The results of the research and their discussion

A total of 80 young females with mean age $26,6 \pm 1,1$ years, ranging from 18 to 35 years participated in the study. Majority (92,3%) of the participants were Asians while 7,7% were from other ethnicities. Mean BMI of the patients was recorded as $20,9 \pm 3,0$ kg/m². More than half of the patients (56,5%) had a normal BMI (18–23 kg/m²), whereas 19,9% of them were underweight and 23,6% were overweight respectively. The average age of menarche was reported as $12,5 \pm 1,5$ years, majority of the participants (95,4%) fall between 10 and 15 years,

remaining 3,1% had menarche before 10 years and only 1.5% had started menstruating after 15 years. The mean duration of the menstrual cycle was recorded as 28 ± 3 days. A significant proportion of the participants (89,2%) had a menstrual cycle that lasted between 21 and 35 days, which is regarded as regular. Given that only 7,7% had cycles longer than 35 days and the remaining 1,1% had cycles shorter than 21 days. Most participants (84,6%) stated that the menstruation lasted 3 to 7 days which is the normal range; 12,3% claimed that menstruation lasted fewer than 3 days while 3.1% said it lasted longer than 7 days.

According to the results it was found that prevalence of PMS alone was 87,6% and with dysmenorrhea 72,2%, respectively. The symptoms of young females diagnosed with PMS were arranged from most to least prevalent as mood swings (66,2%), abdominal bloating (63,1%), irritability or anger (58,5%), food cravings (52,3%), fatigue (49,2%), breast tenderness (44,6%), headaches (40,0%), anxiety or depression (35,4%), changes in sleep patterns (20,0%) and other (1,5%) where the participants were allowed to choose more than one option. Given that, 21,3% of the participants experience premenstrual symptoms always and 34,7% experience the symptoms often.

Further, the study revealed that more than two thirds of the participants (84,0%) experienced dysmenorrhea, 57,1% of them described their dysmenorrhea as moderate, 23,8% as severe and 19,00% as mild pain respectively. Majority of the females (89,2%) stated they experience pain during menstrual cycle while 43,1% before the menstrual cycle.

Almost two thirds of the females (70,6%) have informed pain duration for one to two days, followed with 16,2% less than one day, 8,8% for more than 2 days and 4,4% even after cessation of menses. As per localization of the pain, 82,6% reported pain in lower abdomen, 52,2% in lower back, 23,2% in thighs and 20,3% in all the above-mentioned locations. Majority of the females (31,3%) stated the type of pain as spasmodic but few of them also have reported stabbing (18,8%), piercing (7,8%), shooting (4,7%). Also, it was found that both PMS and dysmenorrhea were associated with absence from daily activities in 38,7% of the participants which indicates a negative impact of PMS and dysmenorrhea on health, social life, work and psychological status of young females. According to the results of the study several temporary pain coping mechanisms have been used. It showed 52,1% used analgesics like ibuprofen, acetaminophen for relieve of pain while 46,5% used heat therapy, 18,3% using herbal remedies, 14,1% engaging in exercises and 1,4% several other mechanisms such as resting and sleeping, massaging, external application of balms, respectively; 25,1% out of them reported their treatment methods were very effective, 64,8% as somewhat effective and 2,8% as not effective at all.

Conclusions

According to the research results it is clearly evident that premenstrual symptoms and dysmenorrhea are highly prevalent among females of reproductive age. Findings also suggest a wide variation of the symptoms of PMS and dysmenorrhea among different age groups affecting the quality of life. Furthermore, despite the fact that young females practiced a number of short-term therapeutic techniques, none of them were shown to be 100% successful. Therefore, it demonstrates the need to develop effective treatment strategies, raise awareness and avoid diagnostic delays in order to lower subsequent consequences like infertility and improve the general quality of life for women of reproductive age.

LITERATURE

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