



IMPACT OF DEPRESSION AND ANXIETY ON SEXUAL FUNCTION IN WOMEN WITH PREMATURE OVARIAN INSUFFICIENCY

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ABSTRACT

This study aimed to assess the levels of depression and anxiety in reproductive-aged women with premature ovarian insufficiency (POI). Assessment tools included the PHQ-9 and GAD-7 questionnaires. A total of 96 women participated in the study. The results showed that 80.2% of participants exhibited symptoms of depression according to PHQ-9, while 78.1% had anxiety symptoms according to GAD-7. Additionally, a trend was observed in which longer duration of POI was associated with higher levels of psychological distress. These findings highlight the clinical significance of mental health issues in women with POI. The effective application of screening tools can aid in early detection of emotional disturbances and support the implementation of a comprehensive care approach.

Relevance of the topic. Premature ovarian insufficiency (POI) is a pathology in women of reproductive age characterised by the cessation of ovulation, a decrease in estrogen levels and an increase in gonadotropic hormones. This condition is often accompanied by symptoms such as menstrual cycle disorders, infertility, heatstroke, insomnia, mood swings, and difficulties in sexual life (1,2). Early onset of the disease makes it difficult to diagnose and manage it, therefore it is necessary to pay sufficient attention to its social and psycho-emotional consequences (3,4). POI is one of the severe endocrine disorders in women of reproductive age, which negatively affects not only hormonal and reproductive insufficiency, but also physical, psychological, and sexual health (5).

Symptoms of depression and anxiety are very common in women with POI, which are often latent and are underestimated in clinical practice (6). Women's attitudes towards their body and identity change: some perceive themselves as "poor women," the likelihood of isolation from society increases (7,8).

Psychoemotional problems, especially anxiety and depression, also seriously disrupt the quality of sexual life. In such cases, sexual function - such factors as desire, lubrication, orgasm, and sexual satisfaction - sharply decrease (9,10).



In world practice, PHQ-9 (depression) and GAD-7 (general anxiety) tests are recommended as reliable screening tools for assessing these conditions (11). However, the exact relationship between these mental states and sexual function in women with POI has not yet been sufficiently studied (12).

Therefore, this study serves to determine the relationship between psycho-emotional state (depression and anxiety) and sexual function in women with POI, to establish early diagnosis and comprehensive care in clinical practice.

Purpose of the study: to study the indicators of depression (PHQ-9) and anxiety (GAD-7) levels in women of reproductive age with early POI.

Materials and methods. This study was organized as an analysis in the Department of Pathology of Pregnancy of the Shakhrisabz District Medical Association during 2023-2024. The study involved 96 women of reproductive age diagnosed with early ovarian insufficiency (EE). All participants voluntarily agreed to participate in the study.

The average age of the women who participated in the study was 34.7 ± 3.2 years. Of these, 68 (70.8%) were married, and 18 (18.7%) were unmarried women. The participants were divided into the following groups depending on the duration of the cessation of menstruation: from 6 months to 1 year - 17 patients (17.7%), 1-2 years - 41 patients (42.7%), 2 years or more - 38 patients (39.6%). This distribution was used to analyze the relationship between the duration of POI and the psychoemotional state.

The following entry criteria were established for participation in the study: the age of the woman was from 18 to 40 years, the diagnosis of POI was confirmed on a clinical (amenorrhea) and laboratory (FSH and estrogen changes) basis, and the woman's consent to voluntary participation in the study was required.

Women who took antidepressants or anxiolytic drugs in the last 3 months, women with a history of severe mental or neurological disorders, women with a history of severe somatic diseases of internal organs and endocrinology, and women with a history of severe mental or neurological disorders, as well as women with serious somatic pathologies, such as diseases of the cardiovascular, renal, hepatic, and endocrine systems, were excluded from the study. These criteria were established to ensure the accuracy and reliability of the research results.

Results and discussion. The study used psychometrically valid and reliable scales widely used in international practice to assess the psycho-emotional state - PHQ-9 (Patient Health Questionnaire-9 - Patient Health Questionnaire - 9) and GAD-7 (Generalized Anxiety Disorder-7 - General Anxiety Disorder - 7).

PHQ-9 is a scale developed for screening, assessing the severity of depression, and dynamic monitoring, recommended by the World Health Organization (WHO) and the American Psychiatric Association. The scale consists of 9 questions, which are compiled based on the diagnostic criteria of ICD-10 and DSM-V. Each question is evaluated on a 0-3 point scale (0 - not at all, 3 - almost every day). The total score ranges from 0 to 27 and is divided into the following categories: 0-4 points - minimal depression, 5-9 - mild depression, 10-14 - moderate depression, ≥ 15 - severe depression.

The GAD-7 scale was developed to assess, screen, and monitor general anxiety disorder (GAD). It consists of 7 questions, each of which covers the symptoms of GAD



(uncoordinated anxiety, restlessness, loss of attention, etc.). Points are scored on a scale of 0-3. Based on its total results, the following levels are distinguished: 0-4 - minimal anxiety, 5-9 - mild, 10-14 - moderate, ≥ 15 - high anxiety.

Both instruments are distinguished in clinical practice by their high reliability, sensitivity, and specificity, and are also fast and effective in assessing the mental state of women.

According to the results of the PHQ-9 questionnaire, about 80.2% of women had signs of depression of varying degrees. Among them, 33 (34.4%) had mild, 28 (29.2%) moderate, and 16 (16.6%) severe depression. This situation indicates the prevalence of mental health problems in women with POI.

The level of anxiety according to the GAD-7 questionnaire also showed a similar trend - a total of 75 (78.1%) participants showed signs of anxiety. Of these, 25 (26.0%) had a moderate and 13 (13.6%) had a high level of anxiety.

These results clearly show that not only physiological, but also psychoemotional imbalance is very important in women with early ovarian insufficiency.

The results of our study indicate that the levels of depression and anxiety are significantly higher in women with premature ovarian insufficiency. In particular, according to the PHQ-9 scale, 80.2% of participants had symptoms of mental disorders of varying severity, and according to the GAD-7 scale - 78.1%. These data were obtained based on our own research and are of great importance as a general conclusion.

1. High levels of depression and anxiety negatively affect not only health problems, but also the general psycho-emotional state of a woman, the quality of life, and social relations. This can be reflected in their family relationships, work capacity, and social activity.

2. As the duration of POI increases, there is a tendency towards an increase in the level of mental disorders. This indicates that early detection of PE and regular monitoring of mental state have preventive significance.

3. In the process of using questionnaires (PHQ-9 and GAD-7), we observed that some women, realizing their inner feelings through questionnaires, began to pay primary attention to their mental state. This shows that these instruments are useful not only for evaluation, but also for recognizing the previous situation.

4. Loss of fertility, cessation of menstrual function, hormonal changes - all this affects women's sense of "womanhood" in society. This can contribute significantly to the levels of depression and anxiety. These factors require a special approach.

5. As can be seen from our results, the continuous practice of determining and assessing the mental state is significant for women with POI. This not only helps to identify mental disorders early, but also to effectively eliminate them. Any gynecological problem - at the same time, there should be a reason for analyzing the mental state.

Conclusion. The results of our study showed a high prevalence of depressive and anxiety states in women of reproductive age with POI. In particular, according to the PHQ-9 scale, 80.2% of participants had depressive and anxiety symptoms of varying degrees, and according to the GAD-7 scale, 78.1% of participants had depressive and anxiety



symptoms. It was also noted that as the duration of POI increases, the tendency towards mental disorders intensifies.

The study confirms that mental changes associated with POI have a serious impact on all aspects of women's lives - sexual activity, social relations, the feeling of fertility, and the quality of life. The use of screening tools such as PHQ-9 and GAD-7 proves their effectiveness and usefulness in the clinical assessment of patients with POI. Based on these cases, it is important to form a system of not only hormonal, but also psychological support in women with POI.

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