

# Study Of The Clinical Characteristics Of Mental Disorders In Women Suffering From Type 2 Diabetes.

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**Introduction:** Nowadays diabetes mellitus is one of the most common chronic diseases , which is not only dangerous for the patient's life, but also affects the psycho-emotional condition and quality of life of patients. Up to 90% of people with diabetes have type 2 diabetes. According to the research of the International Diabetes Federation, the number of people with type 2 diabetes was 196 million in 2003 and 246 million in 2007. In 2025, this indicator is estimated to be 380 million. It is known that the psycho-emotional state and quality of life of patients determine their psychological and physical health.

**Keywords:** type 2 diabetes, quality of life, depression, anxiety, stress.

## Introduction:

Nowadays diabetes mellitus is one of the most common chronic diseases , which is not only dangerous for the patient's life, but also affects the psycho-emotional condition and quality of life of patients.

Up to 90% of people with diabetes have type 2 diabetes. According to the research of the International Diabetes Federation, the number of people with type 2 diabetes was 196 million in 2003 and 246 million in 2007. In 2025, this indicator is estimated to be 380 million.

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and quality of life of patients determine their psychological and physical health. The negative attitude towards diabetes, an unstable psycho-emotional state causes the patient to be unable to adequately evaluate and eliminate this condition.

Many clinical researchers have stated that psychological shocks of patients play an important role in the emergence of diabetes along with biological factors.

The purpose of the study: to study the relationship between the quality of life and the psycho-emotional state of female patients suffering from type-2 diabetes, and at the same time to investigate the adaptation mechanisms of individuals belonging to this group.

## Material and methods:

The DASS-21 scale was applied in order to evaluate the psycho-emotional state and stress resistance of women suffering from type 2 diabetes.

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### Yazışma üçün əlaqə:

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Adaptation mechanisms of women from this group were studied with the COPE-BRIEF scale consisting of 60 questions.

The SF-36 questionnaire was used to study the quality of life of female patients participating in the study. The SF-36 survey consists of 36 questions grouped into 8 scales.

The study involved 47 patients receiving treatment for type 2 diabetes in the Therapeutic Clinic of Azerbaijan Medical University and Republican Endocrinological Dispensary. All examined patients voluntarily participated in the study and informed about its objectives and possible risks. During the study, psychodiagnostic examination of 47 patients suffering from type 2 diabetes mellitus was conducted. Average age among examined patients group was 49. As a result of the statistical calculation, it was found that the majority of patients belong to the category of patients suffering from type 2 diabetes for more than 5 years. The data obtained during the examination of the patients were compared with the control group consisting of healthy individuals. The average age in the control group was determined to be 48.

The DASS-21 is the short form of the DASS-42, a self-report scale designed to measure the negative emotional states of depression, anxiety and stress. Lack of motivation, anhedonia, apathy, mood swings, pessimism, low self-confidence, feeling of hopelessness are the symptoms that related with depression. Dry mouth, a feeling of fear, tachycardia, anxiety, feeling of suffocation, tremor, panic are anxiety symptoms. The

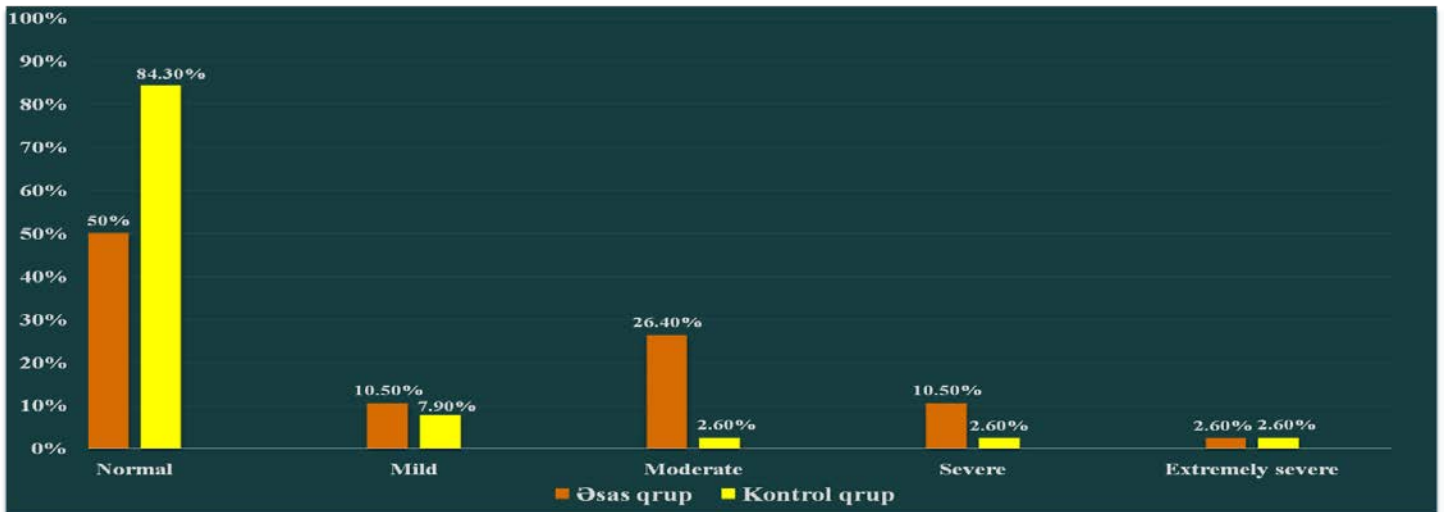
symptoms related with stress are: tension, irritation, nervousness, indecisiveness, resentment, impatience, unable to relax. Patients answer the questions independently, it takes 3-5 minutes.

Adaptation mechanisms are studied through the Cope-brief scale. The scale describes 11 adaptation mechanisms and consists of 60 questions.

The SF-36 questionnaire used to study the quality of life consisted of 36 questions, grouped into 8 groups. The survey combines physical and psychological components of health.

### **Conclusion:**

Almost half - 50% of patients suffering from diabetes have symptoms of depression. Approximately 40% of them (18 patients) were found to have clinically significant depression. Anxiety was noted to be higher in patients with depressive symptoms than in patients without depressive symptoms. There are 3 main reasons for the relationship between depressive disorder and diabetes. 1. psychological factors are the main cause of type 2 diabetes. 2. The presence of genetic transmission - there is a higher probability of diabetes in families with psychological disorders. 3. Finally, knowing that diabetes is a chronic disease, depression has been studied as one of its complications. Depression and diabetes exacerbate each other in a feedback loop. Thus, just as the hormonal disturbance that occurs during depression disrupts blood sugar control, blood sugar instability also exacerbates depressive symptoms.



When studying the symptoms of anxiety, it was found that anxiety among patients with diabetes is higher than in the clinically healthy group. Anxiety symptoms were detected in 58% of patients, of which approximately 42% were found to have significant symptoms.

As it is shown, among patients suffering from diabetes, stress indicators are more pronounced than depression and anxiety. Stress directly and indirectly affects metabolic control in diabetes. The direct effect is related to the release of stress hormones called adrenaline and cortisol by awakening the sympathetic nervous system and pituitary gland and increasing blood sugar. The indirect effect is related to the disruption of diabetes control and treatment sequence of stressful situations. Thus, stress both activates stress hormones and affects the amount of sugar, and also has a negative effect on the patient's control over his disease. Elevated blood sugar physiologically increases the patient's stress index.

We have tried to bring to your attention the indicators of depression, anxiety and stress obtained in both groups. And we found that in patients suffering from diabetes, all 3 indicators are significantly higher than the analogous indicators of individuals from the

control group. At the same time, a significant correlation was noted between the severity of depression and the degree of expression of anxiety and stress, as well as between the level of anxiety and stress.

The quality of life of patients with diabetes is measured by the SF-36 questionnaire. "Physical functionality" (PF), "physical role" (RP), "general state of my health" (GH) are about a third lower than similar indicators in the control group. "Social functionality" (SF), "life activity" (SF), "emotional role" (RE) are below half of the indicators.

Anxiety and depression levels were found to have a negative relation with indicators such as physical, role and social functioning. Furthermore, depression was inversely associated with emotional role functioning. Deterioration of the quality of life prevents patients from maintaining a full-fledged lifestyle and leads to social maladjustment of patients.

In this regard, the task of determining the adaptation mechanisms of diabetes patients becomes very interesting. We used the COPE-BRIEF scale to determine the coping mechanisms used more frequently by diabetic patients. From the results of this large-scale survey are presented we learned that one of

the most frequent adaptation mechanisms is conversion to religion. Among other coping mechanisms, diabetes patients prefer avoidance and alienation strategies. It should be noted that the use of alcohol and psychotropic substances as an adaptation mechanism was not observed among our patients. Also, there were no cases of women resorting to humor to adapt. This is at least the result obtained in our observations.

These were the general final results of all these studies.

The level of anxiety, depression and stress in patients suffering from type 2 diabetes was found to be higher than in the control group.

When studying the quality of life of women with diabetes, it was determined that indicators such as psychological health, general health status, role and physical functionality decreased in them.

It was learned that there is an inverse correlation between the change in the quality of life and their emotional state in the patients involved in the study.

A noticeable decrease in the level of psychological adaptation. It has been studied that the current outcome is associated with a decrease in the quality of life of patients.

The obtained results proved the importance of studying the psycho-emotional state and adaptation mechanisms of patients suffering from type 2 diabetes.

## **Additional Information.**

### **Gratitude.**

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### **Contribution of authors.**

Concept and design: . Collection, analysis or interpretation of data: . Drafting of the manuscript: .

Critical revision of the manuscript for important intellectual content: L.M.,A.B .,M.L. Statistical analysis: L.M.,A.B .,M.L. Data management: L.M.,A.B .,M.L. Study: L.M.,A.B .,M.L . Received support, financing and supervision: L.M.,A.B .,M.L. The authors read and approved the final version of the manuscript

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### **Availability of information and materials.**

The information (data) used and/or analyzed during the analysis can be obtained by contacting the authors or the editors of the journal.

### **Declarations.**

#### **Ethics Committee approval and informed consent.**

Written or oral informed consent was obtained from each participant. The Ethics Committee (AMU, Azerbaijan) and the Scientific Committee of the Congress approved this analysis.

#### **Consent to publish.**

Not provided.

#### **Conflict of interest.**

The author(s) declared no conflict of interest.

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