

# A comparative study on the level of anxiety and depression in patients with type 2 diabetes referring to the diabetes clinic of Imam Khomeini hospital in Zabol in 2018

Hamid Reza Sheikhi<sup>1</sup>, Dadkhoda Soofi<sup>2</sup>, Alireza Sheikhi<sup>3</sup>, Fahimeh Shojaei<sup>4</sup>, Benyamin Saadatifar<sup>5\*</sup>

<sup>1</sup> Msc of Nursing, Faculty Member, Department of Nursing and Midwifery, Zabol University of Medical Sciences, Zabol, Iran. <sup>2</sup> Internal of Medicine, Faculty Member, Department of Medicine, Zabol University of Medical Sciences, Zabol, Iran. <sup>3</sup> Msc Student of Nursing, Zabol University of Medical Sciences, Zabol, Iran. <sup>4</sup> Msc of Nursing, Zabol University of Medical Sciences, Zabol, Iran. <sup>5</sup> Bsc Student of Nursing, Student Research Committee, Faculty of Nursing and Midwifery, Zabol University of Medical Sciences, Zabol, Iran.

**Correspondence:** Benyamin Saadatifar. Bsc Student of Nursing, Student Research Committee, Faculty of Nursing and Midwifery, Zabol University of Medical Sciences, Zabol, Iran. Email: Hamid.Nurse1369@gmail.com

## ABSTRACT

**Introduction:** Depression is one of the most common psychiatric disorders and diabetes is also common in chronic diseases. Blood glucose control in depressed patients is far more difficult than healthy people. Therefore, the present study was conducted by comparing anxiety and depression level in patients with type 2 diabetes referred to the diabetes clinic of Imam Khomeini Hospital in Zabol city in 1397. **Materials and Methods:** This is a causal-comparative study. The statistical population of this study is patients with type 2 diabetes. The method of sampling in this study is random and the sample size was determined according to similar studies of 142 people. At the beginning of the completion of the questionnaire, the research objectives for the study group were anatomical It turned out. In this study, Beck Anxiety Inventory and Beck Depression Inventory were used. After completing the questionnaires, they entered the spss21 software and analyzed by descriptive statistics and ANOVA tests with a 95% confidence interval for all variables. **Results:** According to the results of the above table, it was found that depression ( $25.66 \pm 8.68$ ) in patients with diabetes is more than anxiety levels. **Conclusion:** Regarding the prevalence of depression, anxiety and stress in diabetic patients, medical counseling and, if necessary, treatment of these disorders are recommended.

**Keywords:** Depression, Anxiety, Type 2 diabetes

## Introduction

Infectious diseases and malnutrition have been the main focus of all health policies in the past, but nowadays promotion of health care has largely confronted pathogens. On the other hand, changes in lifestyle and lack of physical activity have changed to non-communicable diseases such as diabetes, osteoporosis, cardiovascular disease, obesity, etc. [1]. However, diabetes is the

most common chronic disease in The whole world is described by the World Health Organization as a latent epidemic [2]. According to the International Diabetes Federation in 2011, more than 366 million people, or 3.8% of adults worldwide, have diabetes [3]. The prevalence of diabetes is expected to reach 50.7% in 2030. In Iran, the prevalence of type 2 diabetes is 7.7%, which according to the World Health Organization is expected to reach 8.6% by 2025 [2].

Glucose intolerance or increased blood glucose is one of the most common symptoms of diabetes, which puts an individual at the risk of short-term and long-term complications of diabetes, while it can provide proper care and control of complications caused by It prevented it [4]. But the inappropriate control of this condition results in an increase in blood glucose levels that can lead to cardiovascular disease, neuropathy, retinopathy, and nephropathy, as well as diabetic foot, amputation, and depression as other complications of diabetes [3].

### Access this article online

**Website:** www.japer.in

**E-ISSN:** 2249-3379

**How to cite this article:** Hamid Reza Sheikhi, Dadkhoda Soofi, Alireza Sheikhi, Fahimeh Shojaei, Benyamin Saadatifar. A comparative study on the level of anxiety and depression in patients with type 2 diabetes referring to the diabetes clinic of Imam Khomeini hospital in Zabol in 2018. *J Adv Pharm Edu Res* 2019;9(S2):151-153.

**Source of Support:** Nil, Conflict of Interest: None declared.

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-Non Commercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

These complications can cause worries, dissatisfaction with life, and poor quality of life. Quality of life is considered to be an important factor in having a good feeling in all aspects of physical, mental and social life, especially in chronic diseases. The organization of global health is the quality of life as a person's perception of his or her own life according to culture and system. The value he lives in and the relevance of these receipts to his goals, expectations, and priorities [5].

Anxiety is the most common response to stressors. Anxiety is an unpleasant emotion that we have experienced all the degree of it in situations such as (anxiety), (concern), (stress), and (fear). Anxiety in patients with hypertension has different psychological and physiological effects. In the theory of social learning, instead of internal conflicts, there are ways in which the anxiety is associated with learning with some successes. In the control viewpoint, it is said that when anxiety is felt by an individual, a person is faced with a situation that does not control it [1].

Anxiety can increase the risk of cardiovascular disease in healthy people and harmful consequences in people with cardiovascular disease. The relationship between these disorders and cardiovascular diseases is reported in many studies. Recent studies also show that anxiety and depression are a common cause of mortality and morbidity and also predict the harmful and dangerous cardiovascular outcomes in cardiovascular patients. This can be an important challenge for the care delivery system and to achieve the desired results in the treatment discussion [2].

Depression is the most common psychiatric disorder that has increased in recent years. In almost everyone's lives, there are times when feelings of unrest, sadness, frustration, discouragement, loneliness, and dissatisfaction have prevailed over them, which are all common experiences of depression, but what makes such feelings. The form of mental disorders is characterized by the type and number of symptoms, severity and duration, as well as the degree of injury that occurs in the normal course of everyday life. These feelings and ways of perceiving them in the realm of normal life and in the field of pathological experience are related to the concept of depression [3].

## Methodology

This is a causal-comparative study that seeks to compare the level of anxiety and depression in patients with type 2 diabetes referred to the diabetes clinic in Zabol. The statistical population of this study is patients with type 2 diabetes. Sampling method was randomized in this study. Sample size was determined according to similar studies of 142 people. The number of participants was selected randomly and discussed with them. After explaining the goals of the research and satisfying them, those who had the criteria for entering the research were selected and invited to participate in the research. At the beginning of the completion of the questionnaire, the research objectives were described for the

study group. In this study, Beck Anxiety Inventory and Beck Depression Inventory were used.

## Beck Depression Inventory

Beck Depression Inventory was used to collect information. The questionnaire consists of 21 groups of depression symptoms, each of which consists of 5-4 options. Beck test is for people over 13 years old and has at least 6 appropriate literacy classes. The interviewer selects each option for the authorities and selects the references of each one that corresponds to their status. The subject must carefully read the sentences of each group, line the number of the sentence that spells out more than a few other sentences of his current state.

These sentences measure the mildest to severe disturbance in that aspect. The subject can score between 0-0 in each round (0 indicates the absence of symptoms of depression and 3 indicates the severity of the disorder in that aspect). To score this test, the scores that the subject draws around their circle, we compute the sum of the scores. The total score can range from 0-63 (Rajabi., 2011).

In this scale, 9 to 9 are normal symptoms, 10-14 are signs of severe depression, 15-15 are mild depression, 30-21 are symptoms of moderate depression, and 30-up score is a sign of severe depression (Beck, 1979). By examining the researches using this tool, Beck and his colleagues found that their coefficient of validity was varied from 0.84 to 0.86 in terms of the interval between running times and the type of test population using the test method. Beck and colleagues again regained the coefficient of test-retest reliability in one-week interval of 0.93 by 1996.

## Beck Anxiety Inventory

This scale is designed to measure the amount of anxiety and includes 21 phrases. Each phrase is one of the symptoms of anxiety that usually affects those who are clinically disturbed, or those who are in anxiety. The person should read the list of symptoms and gradually calibrate the severity of each mark in the last week and mark his assessment in "dull", "mild", "moderate" and "severe" columns. These four options will score points zero, one, two and three respectively.

The total score of the experienced anxiety is obtained from the total points of each mark. So the range of grades can range from 0 to 63, which indicates high levels of anxiety. The results show that this questionnaire has a high validity and validity. Its internal consistency coefficient (alpha coefficient) is 92%. The validity of it by re-test method varies from one week to 75 percent with a solidity of 30-76 percent. Five types of content validity, simultaneity, structure, diagnostic and factor have been measured for this test, which all indicate the effectiveness of this tool in measuring the severity of anxiety. Studies conducted in Iran by Hossein Kaviani and Ashraf Sadat Mousavi in 2007.

The results of the test showed a good validity ( $p < 0.001$ ,  $r = 0.72$ ) ( $p < 0.001$ ,  $r = 0.83$ ) and internal consistency (alpha = 0.92). In order to collect the data, the researchers referred to the Diabetes Clinic after collecting and adjusting the questionnaires and coordinating with the authorities. After communicating with the diabetic patients, they provided a brief

description of the research and its purpose, and they were asked to complete a questionnaire. After answering, the questionnaires were collected. After completing the questionnaires, they entered the spss21 software and analyzed by descriptive statistics and ANOVA tests with a 95% confidence interval for all variables.

## Findings

**Table 1. Comparison of anxiety and depression level in type 2 diabetic patients**

Descriptive Statistics	Variable	Mean	SD	t-test	p-value
	Anxiety	21.80	7.40	7.63	0.001
	Depression	25.66	8.68		

Regarding the results of the above table, it was found that depression ( $25.66 \pm 8.68$  psi) in patients with diabetes is more than anxiety levels.

## Discussion and Conclusion

The present study was conducted with the same approach and to find out whether the level of anxiety and depression in diabetic patients is different. Was performed. Assumptions and specific research objectives were analyzed using statistical methods. The results of t-test showed that the level of depression in diabetic patients was higher than the level of anxiety. This means that the amount of stress that causes burnout and damage to body and mental health, which is not consistent with a study by Mirzai et al. (2016).

Although diabetes complications seem to increase the magnitude and severity of depression observed in these patients. In the study in Mexico, 52.9% and in Pakistan 57.9% of diabetic patients reported anxiety symptoms<sup>[6,7]</sup> that were not consistent with the study. However, in the khuwaja study, there was no relation between the presence of diabetes mellitus and depression and anxiety in patients<sup>[6]</sup>, which is not consistent with the study. However, increasing the duration of illness and the cost of illness and frequent referral for treatment causes mental disorder.

The above article is based on a code research plan:  
IR. ZBMU.REC1397.107

## References

1. Taheri, Khorsandi, Taheri, Ghaffari, Mahin, Amiri. Empowerment-based interventions in patients with diabetes: a review study. *Journal of Rafsanjan University of Medical Sciences*. 2016; 15 (5): 453-68.
2. Shorideh Az, Homira, Arshi, Shannam, Sharideh Az, Forozan. Effect of family-centered empowerment model on lifestyle, self-efficacy and HbA1C in patients with diabetes. *Iranian Journal of Endocrinology and Metabolism, Two-month Journal of Endocrine and Metabolism Research Center, Iranian Journal of Endocrinology and Metabolism*. 2017; 19 (4): 244-51.
3. Razi SP, Sadeghi M, Nasrabadi ARN, Ebrahimi H, Kazemnejad A. The Effect of Family-Based Empowerment Pattern on Knowledge and Metabolic Control of Patients with Type II Diabetes. *Journal of Science and Health*. 2013; 9 (1): Page: 48-54.
4. Ebrahimi, Sadeghi, Vahedi, Pooya K. Comparison of the effect of two patient-centered and family-centered teaching methods (based on empowerment model) on laboratory indices of type II diabetic patients. *Nursing and Midwifery Clinical Journal*. 2016; 5 (1): 87-97.
5. Ghiyoswandiyan, Tabarsei, Beheshti, Mahni M, Soraya, Zarnakesh M. Evaluating the Effectiveness of Participatory Care Model on Quality of Life and Metabolic Indicators of Patients with Type 2 Diabetes. *Journal of Education and Community Health*. 2018; 5: 0.
6. Khuwaja AK, Lalani S, Dhanani R, Azam IS, Rafique G, White F. Anxiety and depression among outpatients with type 2 diabetes: A multi-centre study of prevalence and associated factors. *Diabeto Metabolic syndrome* 2010; 2(1): 72.
7. Tovilla-Zarate C, Juarez-Rojop I, Peralta Jimenez Y, Jimenez MA, Vazquez S, Bermudez-Ocana D, et al. Prevalence of anxiety and depression among outpatients with type 2 diabetes in the Mexican population. *PLoS One* 2012; 7(5): e36887.