

# A Review of the Level of Depression in Patients with Diabetes

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## Abstract

Depression is one of the most common diseases of psychiatrists in the world. One of the causes of depression is medical diseases such as diabetes. Depression is also one of the psychiatric disorders with symptoms such as decreased interest and energy, guilt, failure, distraction, problems in concentration, self-loathing, anorexia, thoughts of death and suicide, insomnia, or Disturbances and disturbances in functioning are identified. Diabetic patients may suffer from mood disorders, including depression, due to this disease. This study aimed to review depression in patients with diabetes. Suffering from depression, in addition to aggravating the symptoms of diabetes, causes self-destructive symptoms such as overeating, overdrinking, not taking medications, or committing suicide, which disrupts the diabetes treatment process. So far, many studies have been done on the prevalence of depression in diabetic patients, which has identified that the prevalence of depression in diabetic patients is much higher than that of normal people, as well as the prevalence of depression in some people, such as women and Hungarians. D. Widows or divorcees, those who have a genetic history of disease. They suffer from depression more than others. It is suggested that psychiatric examination and counseling be done on these patients, especially those patients who are more prone to depression.

**Keywords:** Diabetes, Depression, Psychiatrists, Patients

## INTRODUCTION

Diabetes is a metabolic disease and a significant health problem with an increasing prevalence worldwide [1-3]. This disease is caused by the lack of cellular absorption of blood sugar due to decreased insulin secretion or resistance of body cells to Insulin, which causes complications such as nephropathy [4, 5]. Diabetes is characterized by increased blood sugar in the patient, cardiovascular and renal failure, and decreased nerve activity, among the long-term complications of this disease [6-8]. About 7% of diabetic patients have neuropathic disorders in the first year of diagnosis [9, 10]. With time, various complications of neuropathy, such as memory and learning disorders, Pain, anxiety, fear, reproductive behavior disorders, and depression, occur in diabetic patients [11-13]. One of the important problems associated with chronic diseases such as diabetes is the occurrence of psychiatric disorders, including depression [14, 15]. Depression in diabetic patients is associated with poor quality of life, non-cooperation with treatment, and inappropriate use of medical services [16-18]. Also, in depressed diabetic people, it is more difficult to control their blood sugar level, and the complications caused by diabetes, such as retinopathy, nephropathy, vascular complications, and sexual disorders, are more common [19, 20].

Depression is also one of the psychiatric disorders with symptoms such as decreased interest and energy, guilt, feelings of failure, withdrawal, difficulty concentrating, self-loathing, anorexia, thoughts of death and suicide, insomnia or hypersomnolence, and dysfunction. It is known that neurotransmitters such as serotonin and norepinephrine, as well as various life events and internal stressors such as blood sugar, cholesterol, triglycerides, and other blood factors, as well as chronic diseases, play a role in its occurrence and recurrence [21-23]. The prevalence of diabetes in societies is 3 to 5%, but in some societies, it has a significantly higher

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prevalence [24, 25]. It is challenging for people with diabetes to accept a change in their lifestyle based on the disease, and since these patients usually know about the short-term and long-term complications of the disease and diabetes is a source of stress for the affected patients, the development of mood disorders, especially depression, in this There are many people [26, 27] that many studies have been done to confirm this issue. Grandinetti's study showed that the prevalence of depression in diabetic patients is 61.3%, of which 40.6% have moderate to severe depression [28]. In another study by Anderson *et al.* in a meta-analysis of 42 comparative studies, the prevalence of major depressive disorder in diabetic people was twice as high as in non-diabetic people [29]. Unfortunately, in many countries, depression symptoms are considered natural complications of diabetes. Diagnosing and quickly treating depression along with diabetes is very important [30, 31]. This study aimed to review depression in patients with diabetes.

## MATERIALS AND METHODS

The present study was conducted by searching the literature available in the databases. There were many studies about depression in diabetic patients and the factors affecting it in the databases. In this study, by examining the texts from the databases, the prevalence of depression in diabetic patients and the relationship of various variables such as gender, age of diagnosis, state of reflection, etc. It was discussed with depression in diabetic patients.

## RESULTS AND DISCUSSION

The percentage of depression in diabetic women is much higher than that of diabetic men [32], and the chance of suffering from moderate and severe depression is much higher in women than in men, which can be the result of limited social relationships of sick women and special conditions of women in terms of stress situations [33]. There is a direct relationship between the duration of the disease and depression, which is related to the appearance of the complications of the disease with time, and the lower the literacy level of the patients, the higher the chance of developing depression, which is possible because of the low level [32]. Patients who are genetically predisposed to depression are doubly exposed to depression, and those who are involved in late complications of diabetes are more likely to develop depression than people who do not have difficulties. Diabetic patients who use Insulin suffer from depression more than others, working people have less depression than non-working people, and widowed, divorced, or unmarried people have more depression than married people [34, 35]. Since the prevalence of diabetes is high, the prevention, recognition, and treatment of depression, especially in the early years, plays an important role in controlling diabetes because depression directly affects patients' blood sugar by affecting the hormones that oppose Insulin. Disturbances in eating habits, physical activity, and daily tasks of life, not following the diet and taking medications, suicidal thoughts, reduced mobility, social

isolation, and other related complications also affect the treatment of diabetes. On the other hand, depression may increase self-destructive behaviors such as overeating or drinking in the patient, which intensifies diabetes by affecting the blood sugar status and, as a result, the resulting depression [31]. One of the possibilities for the high prevalence of depression in diabetic patients is the direct physiological effects of diabetes, and studies have shown that lowering blood sugar can directly reduce the prevalence or complications of depression.

Another possibility is that the psychological symptoms are caused by the stress of having a chronic physical disease, and it has been found that stress related to diabetes has a significant positive relationship with the prevalence of depression symptoms in diabetic patients. Therefore, stress management training can play an important role in lowering blood sugar and, thus, depression.

Stress management refers to a set of techniques and methods used to reduce the stress experienced by people or increase their ability to deal with life stress. Studies have shown that cognitive-behavioral stress management training reduces blood sugar and depression in diabetic patients [36, 37]. Any factor that can control the blood sugar of these patients or raise their mood will prevent or reduce the symptoms of depression in them. Aerobic exercise reduces the incidence of depression in diabetic patients or reduces its symptoms [38].

## CONCLUSION

According to the reviewed studies and the high prevalence of depression in diabetic patients and its effect on the course of treatment of the disease as well as the intensification of the complications, psychiatric examination and counseling in these patients, especially those patients who are more prone to depression such as women and people with a history of have had depression in themselves or their family, for early diagnosis of depression and setting up programs related to the prevention and improvement of depression in them, as well as providing psychological training and encouraging them to do activities that control or prevent depression, such as sports Aerobics or blood sugar control is important and beneficial. Considering the lack or lack of studies on some topics, such as the relationship between depression and insulin dose, the quality of self-care with the level and type of depression, and the relationship between hemoglobin A1C and depression, it is suggested that research be conducted on these topics as well.

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