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A review on diabetes associated with psychological disorders among elderly peopl

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***Abstract*---**People over the age of 65 who have diabetes are more likely to have mental health issues. Chronic illness might have a direct or indirect impact on this outcome. Diabetic complications can also play a role. The goal of this study is to examine the relationship between the various diabetes problems and the mental health issues of depression, anxiety, and cognitive decline in the elderly diabetic population. The following are the materials and procedures used: An outpatient geriatric medicine department conducted cross-sectional

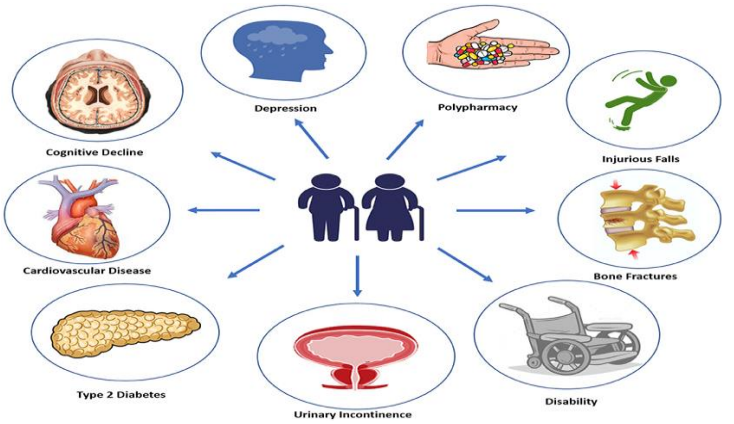
research. It has been found that people with Type 1 and Type 2 Diabetes are more likely to suffer from mental health concerns than the general population. Adults with T1D and T2D are at an increased risk of developing a variety of mental health issues, including depression, anxiety, eating disorders, and more severe forms of mental illness. In this review, we examine the prevalence, impact, and available therapies for these issues. Research priorities for adults with T1D and T2D have been highlighted and explored in light of the literature's implications for psychologists.

***Keywords*---**diabetic complications, elderly, health related, quality of life, mental health disorders, older people.

Introduction

Diabetes is a long-term condition characterised by high blood sugar levels. Diabetes can cause long-term damage to different organs (such as the heart, blood vessels, eyes, kidneys, and nerve cells) when blood glucose levels remain abnormally high. Diabetes is a leading cause of blindness, renal failure, neuropathy, myocardial infarctions, stroke, and lower limb amputation in the elderly. Up to 44% of diabetics with an average age of 80 years have coronary heart disease. (1). Peripheral vascular disease is about twice as common in diabetic persons under the age of 60 as it is in non-diabetics (2). According to the National Health and Nutrition Examination Survey, diabetic retinopathy affects 29.5% of people under the age of 65 who are diabetic. Patients with diabetes are more likely to develop chronic renal disease. More than a third of all new occurrences of end-stage renal disease in persons aged 75 and older are caused by diabetic nephropathy, according to a recent study (3).

Dysregulation of the hypothalamic-pituitary-adrenal axis, activation of the sympathetic nervous system, and the presence of proinflammatory and procoagulant markers are all associated with depression in people who also have cardiovascular disease (4) Patients with type 2 diabetes may have comparable pathophysiologic responses to microvascular and macrovascular problems. Even after correcting for diabetes severity and self-care behaviours, longitudinal follow-up shows that major depression in diabetes is linked to an elevated risk of diabetic complications (5). The fear that one's health may be compromised by diabetes and its sequelae, such as diabetic retinopathy, neuropathy, sexual dysfunction, and macrovascular problems, is a common reaction to receiving the news that one has diabetes(6). Individuals with anxious coping methods (such as avoidance, escape, and denial) had worse adherence to self-care regimens for diabetes and poorer glucose control, which might lead to greater diabetic complications, according to a study (4).



Cerebral microinfarcts and white matter lesions can result from microvascular injury. There is a strong correlation between vascular consequences of diabetes (such as retinopathy) and cognitive deterioration, according to previous research. Diabetic patients' quality of life (QOL) is heavily influenced by the severity and character of their diabetes-related problems Because of this, it is imperative that diabetics avoid problems in order to have a healthy QOL. Depression, anxiety disorders, and cognition have all been studied separately in the past, but there have been few studies that have looked at them all combined in diabetes patients. The primary goal of this study was to investigate the link between diabetes complications and depression, GAD, cognitive impairment, and quality of life (QOL) in elderly diabetics in India. As part of an earlier study published in the "Journal of geriatric mental health," researchers in India have analysed the prevalence of depression, generalised anxiety disorder (GAD), cognitive impairment, and quality of life (QOL) among older diabetics.

Diabetes mellitus (T1D and T2D) patients and their families face a wide range of biopsychosocial problems, regardless of their age of start. In both T1D and T2D, regardless of the underlying cause, the behavioural consequences for patients are the same. The Diabetes Management and Problems Trial Research Group in 1993 and the U.K. Prospective Diabetes Study Group in 1998, both major trials, both found that glycemic control close to nondiabetes levels reduced the risk of long-term complications. As a result, health care practitioners advise patients to supplement or replace insulin with drugs and a variety of self-care activities in order to achieve glycemic control. For the duration of one's life following diagnosis, one must maintain a balance between nutritional intake, energy expenditure through physical activity, and oral and/or injectable drugs (e.g., insulin) (8).

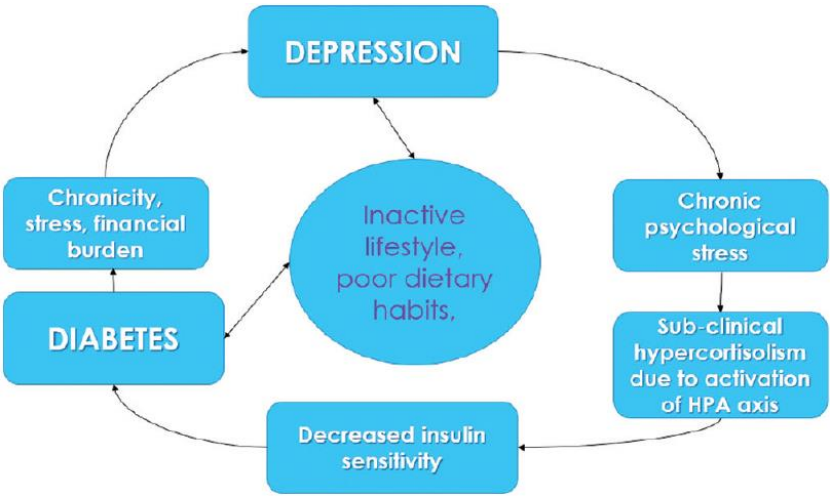
Patients and their families bear a heavy burden because of the demands of self-care and other social and environmental issues (6). People at high risk for diabetes, such as minorities and those from low-income families, may be exposed to environmental factors (e.g., poverty, stress) that raise the risk of mental illness, hinder self-care, and impair medical management (7). Adults with diabetes might suffer from a wide range of mental health issues as a result of these variables. T1D and T2D-related symptoms, syndromes, and diagnoses are all included under the umbrella term "conditions" in this article. Different from larger

psychological processes (e.g., self-efficacy, knowledge, adherence) that may be relevant for diabetic self-management Researchers have developed assessment tools for diabetes-related mental health issues, and a small but growing body of treatment research shows that addressing mental health issues in people with diabetes not only improves their overall well-being but also has the potential to enhance their diabetes metabolism (8).

This article begins by examining the occurrence and treatment of psychological diseases in T1D and T2D adults, with an emphasis on depression, anxiety disorders and other serious mental illnesses like as eating disorders (SMIs). The consequences of each of these disorders on diabetes outcomes will be addressed in more detail in the next section. Also explored are future directions for psychology's research and therapeutic practise, as well as the limits of current literature.

Depression

Depressive symptoms range from high levels of self-report to more official diagnoses such as major depressive disorder, dysthymia, or adjustment disorder with sad mood in studies of diabetes patients (7). Because of the varying ways in which the term "mental illness" has been defined, the research on its prevalence, effect, and treatment options has been inconsistent. In this article, we refer to self-reported symptoms inventories as "depressive symptoms," whereas a formal psychiatric diagnosis is referred to as "depression."



Symptoms in Diabetes

Depressed symptoms were shown to be more common in persons with type 1 diabetes (21.3 percent) than in those with type 2 diabetes (27 percent) in a meta-analysis of cross-sectional studies of diagnosed depression and depressive symptoms (9). T2D risk is elevated by 24–38 percent in persons with depressive symptoms in recent meta-analyses of longitudinal studies. According to psychiatric interviews, 8 to 15 percent of individuals with T1D and T2D suffer

from depressive disorders (8), but no research has examined the prevalence of diagnosed depression in only T1D samples. According to pooled prevalence studies (k 116) mostly conducted in North America and Europe (Ferrari et al., 2013), the adjusted global point prevalence (4.7 percent; 95 percent confidence interval [CI] [4.4 percent, 5.0 percent]) and elevated depressive symptoms in the general population (k 116%) are significantly higher.

Studies on depression's length and recurrence have been few. Major depressive disorder patients relapsed at a rate of 79 percent in a 5-year longitudinal study. There have been no longitudinal studies of depression in T1D or T2D samples to date, but cross-sectional studies of elevated depressive symptoms suggest that depressive symptoms appear to persist for long periods (e.g., 12–18 months) (10). Data from the Multiethnic Study of Atherosclerosis and a later meta-analysis have demonstrated a bidirectional longitudinal connection between depression symptoms and T2D mellitus in adults (8). It has been found that antidepressant drugs increase the likelihood of developing type 2 diabetes (7). Diabetes, on the other hand, necessitates major dietary and self-care adjustments, which can be depressing for the patient. Those with type 2 diabetes who are treated insulin are more likely to suffer from depression than those who are on non-insulin medicines or dietary and lifestyle therapies alone (8). In spite of the fact that insulin is not a causal agent, the burden on the patient to manage their condition is increased when it is used (6). Recurrent hypoglycemia and poor glycemic control are two more diabetes-specific risk factors for depression (11).

Psychological Conditions and Self-Care Behaviors

Adults with any of the diseases included in this research were shown to have lower rates of self-care for their diabetes than those who did not. Chronic depression and depressed symptoms have been linked to poor adherence to treatment suggestions, such as regular doctor's consultations, adherence to a healthy diet and exercise, medication usage, and glucose monitoring (12). People with diabetes who have weak problem-solving abilities also have poorer metabolic regulation (13). Anxiety impairs diabetic self-care, including food compliance. DEBs and eating disorders have been shown to be associated with worse rates of self-care adherence, particularly when it comes to insulin administration. Diabetes ketoacidosis, which can lead to coma and death, can occur as a result of intentionally reduced insulin dosages or insulin omission (i.e., missing doses).

Results

Diabetic patients in this research had an average age of 64.68 years, with a standard deviation of 4.89 years. Approximately 60% of them were men. Across all socioeconomic levels, cases were evenly distributed. The average BMI was 24.11 4.07. Hypertension was the most frequent comorbidity (64.4 percent), followed by BPH and COPD. Among diabetics, just 16.7 percent had no comorbidities. More than 70% of diabetes individuals suffered at least one problem. 32.8 percent of diabetic retinopathy, 36.1 percent of diabetes nephropathy, 38.3 percent of diabetes neuropathy, 19.4 percent of coronary artery disease, and 9.4 percent of cerebrovascular disease were found.

There were no significant associations between sociodemographic characteristics and diabetes complications when comparing diabetic individuals. Diabetic patients' demographic characteristics (age, gender, socioeconomic status, occupation, education, family income, marital status, and BMI) were not significantly associated with any mental health disorder or poor quality of life when compared to diabetic patients. More than half of all diabetes patients (49.3% vs. 27%) had diabetic neuropathy, which was related with an elevated risk of depression. GAD was not associated with any type of diabetic complication. Diabetes patients with cardiovascular disease (CVD) had a higher risk of cognitive impairment than those without CVD (82.4 percent vs. 50.9 percent; P = 0.013). realm of the environment According to, diabetic nephropathy patients had lower quality of life (68.02 vs. 72.82; P 0.040) than those without the condition. A correlation value of 0.180 was found between the mean Geriatric Depression Scale (GDS) scores and the mean Montreal Cognitive Assessment scores (P 0.016). GDS scores were considerably higher in diabetic neuropathy patients than in those without the condition (P=0.008).

Discussion

The prevalence of diabetes has skyrocketed in the modern era. It not only affects the individual's physical health, but also their emotional, social, and economical wellness. Diabetes problems are more frequent in old age, making older people much more vulnerable. According to this research, the average age of diabetics was 64.68 years and 4.89 years. Seventy-eight percent of them (72.8%) are under the age of 65. In Delhi's urban slums, the incidence of diabetes rises with age, but then drops as the population ages. [14-17] Social considerations in India can further skew this, since comparatively younger old people are more likely to seek treatment at tertiary hospitals than extremely senior people, who are more likely to remain in primary or secondary care facilities and report to tertiary care facilities. According to the International Diabetes Federation,[18] diabetes is equally divided across men and women. However, in this study, the majority of diabetics are male.

Because of the patriarchal nature of our culture, women's access to health care may be skewed in this way. Nearly two-thirds (66%) of the senior diabetics in this research were overweight or obese, suggesting that Indians with advanced diabetes are slimmer than their Western counterparts (84,7%). [17]. Diabetic complications (either microvascular or macrovascular) are seen in two-thirds of diabetic individuals in this research. Approximately 32.8 percent of diabetics have diabetes-related retinopathy; 36.1 percent have diabetes-related nephropathy; and 38.3 percent have diabetes-related neuropathy, respectively. The prevalence of diabetic retinopathy, microalbuminuria, and diabetic neuropathy in the Chennai population was found to be 20.8 percent, 26.9 percent, and 26.1 percent, respectively. According to the results of this study, the prevalence of coronary artery disease (CAD) and cardiovascular disease (CVD) in diabetics is 19.4 percent and 9.4 percent, respectively. [18-21]

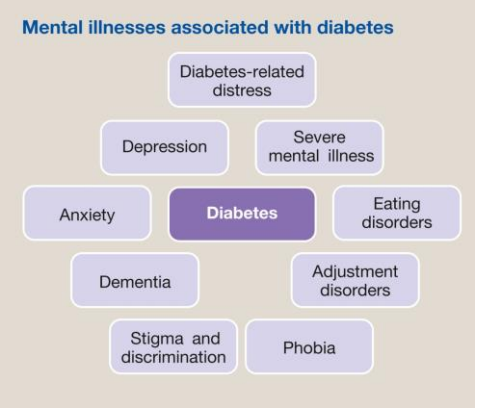
Vision loss in the elderly raises the likelihood of falls, which may lead to functional impairment and increase the risk of isolation and depression in the elderly. Diabetes patients with diabetic neuropathy have a two-fold greater

incidence of depression compared to those without diabetic neuropathy (49.3 percent vs. 27 percent). Diabetic neuropathy and depressed symptoms may be linked to patients' subjective sensations of neuropathic pain, diminished sensation in the feet, and unsteadiness. As a result, diabetic neuropathy may be a risk factor for depression in and of itself. Diabetic neuropathy has also been linked to depression in the past, according to previous research. [22] Peripheral neuropathies impair stability, sensorimotor function, gait, and activities of daily living in diabetics over the age of 60. [23]

Diabetic complications aren't linked to GADs in any specific way. Previous research has shown a relationship between anxiety and diabetes problems, however the screening techniques used to detect anxiety symptoms rather than explicitly diagnosing GAD have been employed in most of these investigations. [24]. Patients with diabetes who have cardiovascular disease (CVD) are 60 percent more likely to suffer from cognitive impairment than those who do not have CVD (82.4 percent vs. 50.9 percent). Cognitive impairment is caused by a variety of physiological and pathological factors. Despite the fact that infarcts are the primary cause of brain alterations, cognitive impairment can be caused by other variables. Dementia risk factors include white matter lesions and silent brain infarcts. [25] Diabetes has been linked to dementia (vascular and neurodegenerative) with a two-fold higher risk in previous studies. [26] Women over the age of 80 whose cognitive ability has declined over the course of their lives are more likely to have never had diabetes. [27] Patients with diabetic nephropathy had worse environmental quality of life scores than those without the condition. Diabetes complications have been found to be the most significant disease-specific driver of quality of life (QOL) in prior research. [28]

Conclusions

Diabetes problems such as neuropathy, cardiovascular disease, and nephropathy have been linked to depression, cognitive impairment, and a worse quality of life. Patients with diabetes should undergo a full mental health check-up every six months, however this may not be possible owing to time restrictions in the Indian healthcare system. Mental health problems should be checked at the very least for diabetics with complications since they are more likely to have these illnesses than diabetics who have no other health issues



Understanding the co-occurrence and interplay of psychological problems that impact people with Type 1 and Type 2 diabetes is equally critical. Diabetes-related distress has been found to be linked to poor glycemic control and to have some variation with depressive symptoms (27). T1D and T2D patients, their family members, and healthcare providers are all affected by this disease-specific phenomenon (16). Developing empirically validated therapies for people with diabetes distress alone, diabetes distress coupled with depressed symptomatology, as well as those with depressive symptomatology alone, remains a major unanswered question in the field of diabetic distress and depression. In order to better understand the overlapping and distinct contributions of diabetes and co-occurring diseases, robust study approaches that go beyond simple relationships are needed.

For therapies, it's not clear if treating psychological risk factors like depression and post-traumatic stress disorder (PTSD) lowers the chance of developing type 2 diabetes. There is a need for more research to produce empirically validated therapies to treat psychological disorders in people with type 1 and type 2 diabetes across the lifespan, particularly in older persons and culturally diverse populations. There is a need to discover which interventional aspects (e.g., cognitive-behavioral therapy) are most helpful for patients with T1D and T2D among the currently empirically validated strategies. Mental health and financial results for these individuals will depend on psychologists in clinical practise, making psychologists essential providers of treatment.

There is a great deal that psychological research and clinical practise can do to help people living with type 1 or type 2 diabetes. Patients with diabetes may benefit from psychological breakthroughs made by psychologists because they have the skills and experience necessary to improve models for diagnosing, preventing, and treating mental health disorders. Individuals and families with diabetes will benefit from our continued efforts in this area. Diabetic complications have been linked to an increased risk of mental health disorders, but no studies have proven that screening and early treatment of these mental illnesses can improve glycemic control, adherence to treatment, morbidity and total mortality. These findings will have to be further investigated in the future.

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