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An Overview on Diabetes distress

Mona Mohsen Salah Ali[1], Yasser Mohamed Raya[2], Yasmin Husseiny Hassan Hussein[1]

[1] Family Medicine Department, Faculty of Medicine, Zagazig University

[2] Psychiatry Department, Faculty of Medicine, Zagazig University
***Corresponding author:** Mona Mohsen Salah Ali

Email: monamohsen905@gmail.com,

Abstract:

Diabetes distress refers to the emotional and psychological burden experienced by individuals living with diabetes, resulting from the ongoing demands of managing the disease. It is distinct from clinical depression, although the two can co-occur. Diabetes distress includes feelings of frustration, burnout, worry, and guilt associated with self-care, fear of complications, and interpersonal issues related to diabetes. Research indicates that approximately 30% to 40% of individuals with diabetes experience moderate to high levels of distress at some point during their illness. Unlike depression, diabetes distress is considered a natural response to the chronic stress of managing a complex medical condition rather than a psychiatric disorder.

Keywords: Diabetes distress, emotions and psychological disturbance.

Introduction:

Diabetes distress is a unique and significant emotional response to the burden of living with and managing diabetes. Unlike clinical depression, diabetes distress specifically arises from the ongoing demands of diabetes self-care, the fear of complications, and the perceived failure to meet treatment goals despite efforts. It affects both type 1 and type 2 diabetic patients and is associated with poor glycemic control, decreased adherence to medical regimens, and lower quality of life. Research indicates that nearly one-third of individuals with diabetes experience diabetes-related emotional distress at some point. This condition can manifest as frustration, worry, burnout, or feelings of helplessness. Left unaddressed, it can impair diabetes management and worsen clinical outcomes. Therefore, early identification and intervention through psychosocial support, diabetes education, and integrated care approaches are crucial in improving both emotional well-being and physical health outcomes **(1).**

Diabetes distress (DD) refers to the negative emotions and burden of self-management related to living with diabetes. (**2**) This term is used to describe the despondency and emotional turmoil specifically related to living with diabetes, in particular, the need for continual monitoring and treatment, persistent concerns about complications, and the potential erosion of personal and professional relationships. (**3**)

This is distinct from emotional stress, such as depression or anxiety because diabetes distress is associated with daily life experience with diabetes, but not a generic feeling. Diabetes distress often arises from concerns about food, future complications, and uncomfortable social interactions. Furthermore, patients with distress are more likely to have a severe diabetes symptom burden, work disability, and higher healthcare costs. (**4)**

Prevalence of diabetes distress:

Its prevalence is reported to be 18–45% with an incidence of 38–48% over 18 months. (**5**) A meta-analysis reported that up to 36% of patients with type 2 diabetes mellitus (T2DM) experience diabetes distress. **(6)**

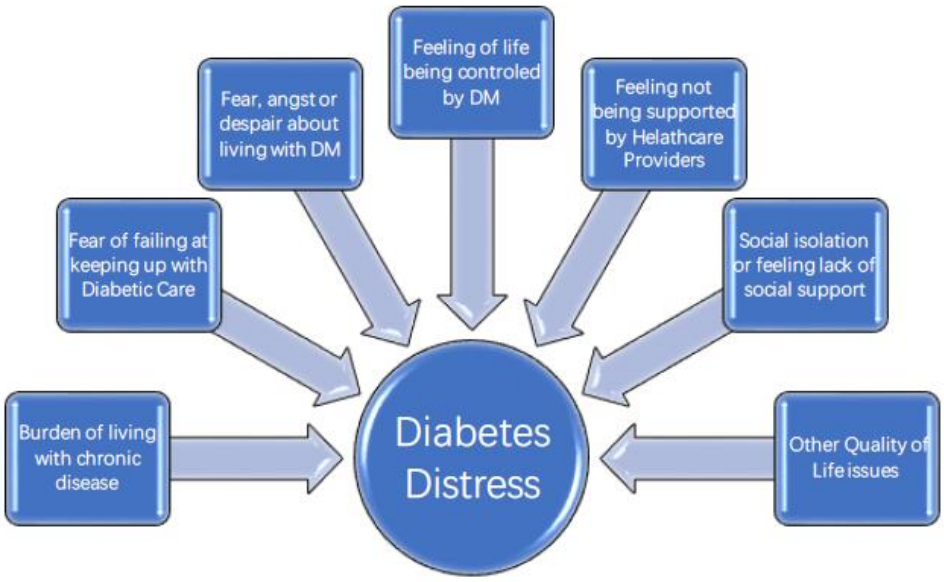

Fig. 1 - Understanding diabetes distress: a schematic representation. **(7)**

The sources of diabetic distress can be multiple, and one study has factor analytically derived from seven major sources of distress in diabetic patients (Table 1): powerlessness, negative social perceptions, physician distress, friend/family distress, hypoglycemia distress, management distress, and eating distress. **(8)**

Table 1 - Seven factors analytically derived sources of diabetic distress. **(9)**

Source of distress	**Description**
Powerlessness	A state of helplessness when individuals unsuccessfully try to control several challenging, and often uncontrollable, aspects of diabetes
Negative social perceptions	Feelings of social mistreatment and discrimination by people and employers
Physician distress	Feelings of mistrust and incompetence about the physician treating diabetes
Friend/family distress	Feeling of being treated as sick and different by family members and friends. Feeling that family and friends exaggerate the threat posed by diabetes
Hypoglycemia distress	Fearful feelings of experiencing sudden episodes of hypoglycemia such as during driving or sleeping, and fear of failing to notice signs of hypoglycemia

Management distress	Feeling distressed over not constantly monitoring one's blood glucose levels and feelings of not being sufficiently considerate to diabetes care
Eating distress	Feeling distressed over unhealthy eating and not exercising, disciplined eating behavior to support better management of diabetes

Risk factors for developing DD:

- Being younger
- being female
- having a lower degree of education
- living alone
- having a higher body mass index (BMI)
- lower perceived self-efficacy
- lower perceived provider support
- poorer quality diet
- greater perceived impact of glycemic excursions; and greater number of diabetes complications. **(7)**

Diabetes distress is not the same as depression (Table 2), and the two conditions do exist simultaneously and independently. Diabetes distress is largely an emotional response to the challenges posed by diabetes and may include emotional reactions such as fear, worry, anger, guilt, sadness, frustration, and burn out. On the other hand, depression involves significant cognitive, affective, social, motivational, and vegetative disturbances in an individual. **(9)**

Table 2 - Differentiating between diabetes distress and depression. **(9)**

Diabetes distress	**Depression**
Mainly an effective response to diabetes, morbidity and burden of the disease	A complex response involves a range of other reactions dissimilar to the affective response
Specific affective reactions may include worry, fear, guilt, sadness, anger, frustration, and burnout	Response usually includes cognitive, affective, social, motivational, vegetative, and interpersonal disturbances
Prevalence is greater	Prevalence is relatively lesser
Diabetes and diabetic distress seem to be linearly related	Diabetes and depression seem to have reciprocal connections in many cases
Not a significant risk factor for developing medical complications	It is a significant risk factor for developing medical complications

Has been relatively consistently associated with HbA1c levels	Has not been shown to have consistent associations with HbA1c levels
Interventions may involve psychoeducation, supportive therapy, counselling, and other simple behavior management methods	Interventions may involve use of complex psychological interventions such as CBT and ACT

Diabetes distress does not appear to be related to duration of illness. In other words, an adolescent or young adult may feel more distressed about having DM diagnosed recently versus someone who has dealt with DM for most of their lives. However, using DM management with insulin injections as proxy of severer illness (compared to DM managed by diet or medications), it can be predictive of patient with more emotional distress. **(7)**

DD effect on glycemic control:

DD is a critically important mental health issue to be aware of and should be part of regular screening. (**10)** DD is associated with elevated A1C levels, higher diastolic blood pressure, and increased low-density lipoprotein cholesterol levels. (**11)** Diabetic distress has been associated with cross-sectional and time-concordant levels of hemoglobin A1C (HbA1c) among adults, whereas no such association has been found between depressive symptoms or clinical depression and HbA1c. **(9)**

Furthermore, individuals with higher levels of DD were found to have a 1.8-fold higher early mortality rate, a 1.7-fold increased risk of cardiovascular disease, and a lower quality of life. **(12)** High levels of diabetes distress significantly impact medication-taking behaviors and are linked to higher A1C, lower self-efficacy, and poorer dietary and exercise behaviors. **(5)** patients with distress are more likely to have a severe diabetes symptom burden, work disability, and higher healthcare costs. **(13)**

Management of diabetes distress:

Management of diabetes distress is important as unmanaged distress is associated with poor glycemic control, medication adherence issues, decreased QoL, lower self-efficacy, negative health beliefs, and poor self-care behaviors. **(9)**

First and foremost is the acknowledgment in a provider's mind that DM is not just a physical ailment completely isolated from a patient's psyche. (**7**) It may be helpful to provide counseling regarding expected diabetes-related versus generalized psychological distress at diagnosis and when disease state or treatment changes. **(5)**

If diabetes distress is identified, the person should be referred for diabetes education to address areas of diabetes self-care that are most relevant to the patient and have the most impact on diabetes outcomes. People whose self-care remains impaired after tailored diabetes education should be referred by their care team to a behavioral health provider for evaluation and treatment. **(5)**

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