

Depression as Co-Morbidity among Diabetes Patients in India: An Increasing Disease Burden

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Abstract

Depression is the most common mental disorder worldwide. Nearly 350 million people are affected from depression. The prevalence of depression is higher in developing countries compare to developed countries. Diabetes is a chronic endocrine disease, affecting a large proportion of the world population. World Health Organization estimated that by 2030, the number of diabetes patient at global and India level will be 360 million and 79.4 million respectively. Depression increases the possibilities of poor glycemic control among diabetic patients due to poor self-care and behavioral mechanism. In the world, prevalence of depression among patients with diabetes is around 8.5-27.3%. Indians have wide range of the prevalence (12-49%) because of vast geographical and ethnic differences. The co-morbidity of depression among diabetic patients is an obstacle in sound diabetes management. Lack of social support, migration, gender, low economic status, unemployment and poor screening system are increasing the risk of depression in patients with diabetes. An integrated health care program is necessary to reduce the prevalence of depression among diabetic patients. The screening of depression at diabetes clinic, good social support and collaborative program are effective in reduction of depressive symptoms among patients with diabetes. Early diagnosis and treatment of depression among diabetic patient will be helpful in declining the direct treatment cost, disease burden, morbidity and mortality rate.

Keywords: Depression; Diabetes; Prevalence; Diabetic Patients; Co-Morbidity; Screening.

Introduction

Depression is among the most common mental disorder at global level. Depression is a group of psychiatric symptoms. It is characterized by low self worth, altered sleep pattern, loss of appetite, sadness, lack of pleasure and poor concentration. Nearly 350 million people are suffering from depression. Prevalence of depression is common among women than men. Disability is the main cause of depression worldwide [1,2]. The prevalence of depression in developing countries is the most common psychiatric disorder, ranging from 10%-37.7%. The prevalence of depression is markedly increasing. The World Health Organization is predicted by 2030, depression will be on the top of global burden of disease [3]. In India, the prevalence of depression is high in urban and

rural areas. India has wide range of demographic and ethnicity so that the prevalence is varying in different populations [4].

Diabetes has emerged as a major health care concern at global level. Diabetes is a chronic endocrine disease resulting due to under utilization of the produced Insulin or insufficient secretion of the Insulin in the body. Diabetes is one of the leading causes of morbidity and mortality worldwide [5,6]. Diabetes patients are expected to carry out lifelong various self-care majors to maintain glycemic control and reduce the risk of developing complications [7]. The World Health Organization estimated that by 2030, the number of diabetes patient at global and India level will be 360 million and 79.4 million respectively. It is expected that by 2030, India will be the diabetes capital of the world [8,9].

Depression and diabetes are major public health issues. By 2030, depression and diabetes are projected to be among the 5 leading causes of disease burden [10]. Depression is an independent risk factor for the developing of diabetes type-2. Depression is associated with a 60% increased risk of developing diabetes among depressive people. Some studies have suggested that depression can

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affect the optimal blood sugar level due to poor self care. Recurrence of depression is common in people with diabetes [1]. Depression may also increase the risk for type-2 diabetes because of behavioral mechanism. The studies have shown that rate of depression to be 12-17% among patient with metabolic disorders. Patients have higher medical symptoms burden, poor blood sugar control and inadequate self care [4].

Prevalence of depression among diabetic patients

The prevalence of depression is high among diabetic patients. Depressive symptoms affect nearly 25% of diabetic population [1]. The world health survey reported that, the prevalence of depression in diabetes was significantly associated with a vast range of diabetes complications. The prevalence of depression among patients with diabetes is around 8.5-27.3% at global level [11]. In India, the prevalence rate is higher than developed countries. Ranjan Das et al revealed that in West Bengal, the prevalence was 46.2% and Naseer Ali et al. found that the prevalence was 27% among patient with diabetes [12,13]. Some studies have shown that rate of depression to be between 12-17% among diabetic patients. Patients had shown higher medical symptoms burden, poor blood sugar control and inadequate self-care [14,15,16]. Madhu et al. reported the prevalence of depression was 49% amongst patients with diabetes in Trivandrum, India [17]. National institute of Mental health reported that depression has a critical progress in diabetic patients. The rate of reoccurrence of depression is higher among diabetic patients compare to non-diabetic patients [18,19].

Risk factors for depression in diabetic patients:

1. Gender (Female)
2. Lack of social support
3. Low socio-economic status
4. Poor glycemic control
5. Critical life events
6. Migration
7. Presence of co-morbidities
8. Unemployment
9. Poor screening of diseases
10. Inadequate health education and counseling

Possible solutions to minimize the depression among diabetic patients:

- ❖ Integrated care for depressive and diabetic patients

- ❖ Screening for depression at diabetes clinic
- ❖ Develop self care activities among diabetic patients
- ❖ Collaborative care programme
- ❖ Screening for diabetes at psychiatric clinic
- ❖ Develop social support
- ❖ Implementation of Mental health program
- ❖ Evidence based treatment for depressive and diabetic patients
- ❖ Sound guidance and counseling system for depressive and diabetic patients

Conclusion

Depression is a group of psychiatric symptoms. Diabetes is increasing drastically at global level. By 2030, depression and diabetes are projected to be among the 5 leading causes of disease burden. Depression is a major concern among diabetic patients. The rate of depression is higher among patients with diabetes. People with depression and diabetes are at greater risk of disability, poor quality of life and mortality. American diabetes association has recommended screening and assessment of depression in diabetes patients [9]. Depression may be a critical obstacle in effective diabetes management. There is a need of integrated care system for the diabetic patients, suffering from depression. The proper screening is necessary for depression among diabetic patients to reduce the disease burden in India. Social support will be helpful in developing confidence among the patients. Guidance and counseling can be effective in better management of self care by diabetic patient. Evidence based treatment like psychotherapy, can be effective in managing depression among the patients. Preventive measures should be taken to decline the level of depression among diabetic patients. The cost of treatment among the diabetic patient suffering from depression may be reduced if proper initiatives are taken to prevent depression. Early diagnosis and treatment of depression among patients with diabetes will be helpful in reducing disease burden, morbidity level and mortality rate. The co-morbidity of depression and diabetes affects the national economy by direct treatment cost, indirect cost and loss of manpower & productivity.

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