

Analysis of Psychiatric Illness among Patients with Diabetes: An Institutional Based Study

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ABSTRACT

Background: The interface of diabetes and psychiatry has fascinated both endocrinologists and mental health professionals for years. Studies of diabetes type 2 have shown that high glucose may contribute to anxiety and depression. Hence; the present study was undertaken for assessing the psychiatric illness among diabetic patients.

Materials & Methods: A total of 200 patients with presence of type 2 diabetes from a minimum of 5 years were enrolled. Complete demographic and clinical details of all the patients were obtained. Patients with presence of any other systemic illness or any known drug allergy were excluded. A Performa was made and complete medical history of all the patients was recorded. A questionnaire was made and presence of psychiatric illness among the patients was recorded.

Results: In the present study, a total of 200 type 2 diabetic patients were enrolled. Among these 200 patients, psychiatric illness was present in 56 patients. Overall incidence of psychiatric illness was 28 percent. Significantly higher prevalence of psychiatric illness was seen among patients of higher age group. Significant results were obtained while correlating psychiatric illness with duration of diabetes. Anxiety

disorder and depression were seen in 21.42 percent and 28.57 percent of the diabetic patients with psychiatric illness.

Conclusion: Significant proportion of diabetic patients is affected with psychiatric illness. Also, it was seen that psychiatric illness was more common among diabetic patients of elderly age group and of longer duration of diabetes.

Key words: Diabetes, Psychiatric Illness.

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INTRODUCTION

The interface of diabetes and psychiatry has fascinated both endocrinologists and mental health professionals for years. Way back in 17th century Thomas Willis speculated that diabetes was caused by "long sorrow and other depressions." Sir Henry Maudsley commented that "Diabetes is a disease which often shows itself in families in which insanity prevails" in "The Pathology of Mind" published in 1879. Insulin coma therapy was used as a psychiatric treatment within a decade of isolation of insulin. Over the past few decades this interface has been studied more extensively with greater scientific rigor. Diabetes and psychiatric disorders share a bidirectional association - both influencing each other in multiple ways.¹⁻³ Studies of diabetes type 2 have shown that high glucose may contribute to anxiety and depression. Comparative research on mental health among diabetic subjects (n = 42) and nondiabetic subjects (n = 42) from 17 countries found an OR of 1.38 for depression and dysthymia

(95% confidence interval, 1.15-1.16) and an OR of 1.20 for generalized anxiety disorders (GADs), panic/agoraphobia, and posttraumatic stress disorder.⁴ Hence; the present study was undertaken for assessing the psychiatric illness among diabetic patients.

MATERIALS & METHODS

The present study was carried out in Chandulal Chandrakar Memorial Medical College, Kachandur, Durg, Chhattisgarh (India) with the aim of evaluating the psychiatric illness among the diabetic patients. A total of 200 patients with presence of type 2 diabetes from a minimum of 5 years were enrolled. Complete demographic and clinical details of all the patients were obtained. Patients with presence of any other systemic illness or any known drug allergy were excluded. A Performa was made and complete medical history of all the patients was recorded. A questionnaire

was made and presence of psychiatric illness among the patients was recorded. All the results were recorded in Microsoft excel sheet and were analysed by SPSS software. Chi-square test was used for evaluation of level of significance.

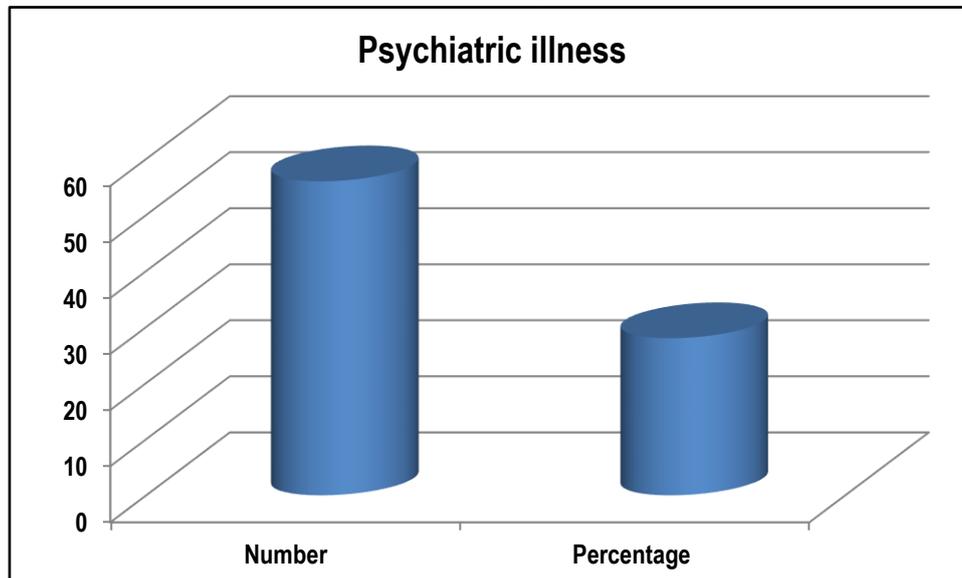
RESULTS

In the present study, a total of 200 type 2 diabetic patients were enrolled. Among these 200 patients, psychiatric illness was present in 56 patients. Overall incidence of psychiatric illness was 28 percent. Among these 56 patients, 30 were males while the

remaining 26 were females. Significantly higher prevalence of psychiatric illness was seen among patients of higher age group. Majority of the patients with presence of psychiatric illness had duration of diabetes of more than 15 years. Significant results were obtained while correlating psychiatric illness with duration of diabetes.

Anxiety disorder and depression was seen in 21.42 percent and 28.57 percent of the diabetic patients with psychiatric illness. Adjustment disorder and delirium was seen in 14.28 percent of the diabetic patients each with psychiatric illness.

Graph 1: Incidence of psychiatric illness



Graph 2: Type of psychiatric illness

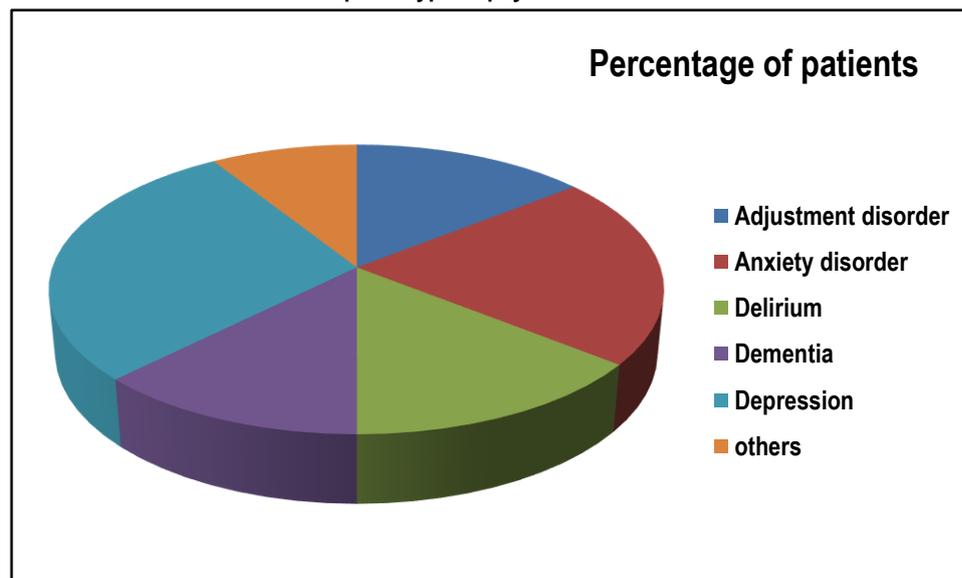


Table 1: Correlation of psychiatric illness with age and gender

Variable		Psychiatric illness present	Psychiatric illness absent	p- value
Age	Less than 40 years	42	74	0.00*
	More than 40 years	14	70	
Gender	Males	30	83	0.12
	Females	26	61	

*: Significant

Table 2: Correlation of psychiatric illness with duration of diabetes

Duration of diabetes	Psychiatric illness present	Psychiatric illness absent
5 to 10 years	8	51
10 to 15 years	10	50
More than 15 years	38	43
p- value	0.00 (Significant)	

DISCUSSION

Diabetes mellitus is a chronic disease that may begin in childhood (type 1) or can appear in adulthood (type 2). Individuals with chronic diseases have twice the likelihood of having mood and anxiety disorders compared with healthy people. The prevalence of psychiatric disorders in diabetic patients may reach 84% for mood disorders and 80% for anxiety disorders. The direct relationship between these disorders is truth.^{5, 6} Many persons with diabetes and depression also have comorbid anxiety disorders, such as generalized anxiety disorder, panic disorder, or posttraumatic stress disorder. Anxiety disorders also can occur in persons with diabetes but without comorbid depression.⁴ Increased anxiety in persons with type 1 or type 2 diabetes can occur when diabetes is first diagnosed and when diabetes complications first occur.⁵⁻⁷

In the present study, a total of 200 type 2 diabetic patients were enrolled. Among these 200 patients, psychiatric illness was present in 56 patients. Overall incidence of psychiatric illness was 28 percent. Among these 56 patients, 30 were males while the remaining 26 were females. Significantly higher prevalence of psychiatric illness was seen among patients of higher age group. Maia ACCDO et al analysed the prevalence of psychiatric disorders in diabetic patients. The research involved the participation of 200 subjects divided into 2 groups: 100 patients with diabetes type 1 and 100 patients with diabetes type 2. 85 (42.5%) were found to have at least 1 psychiatric disorder. The most prevalent disorders were generalized anxiety disorder (21%), dysthymia (15%), social phobia (7%), current depression (5.5%), lifelong depression (3.5%), panic disorder (2.5%), and risk of suicide (2%). Other disorders with lower prevalence were also identified. The groups showed a statistically significant difference in the presence of dysthymia, current depression, and panic disorder, which were more prevalent in patients with diabetes type 1. The high prevalence of psychiatric disorders in diabetic patients points to the need for greater investment in appropriate diagnostic evaluation of patients that considers mental issues.⁵

In the present study, majority of the patients with presence of psychiatric illness had duration of diabetes of more than 15 years. Significant results were obtained while correlating psychiatric illness with duration of diabetes. Studies evaluating the relationship between depression and hyperglycemia in patients with diabetes have yielded controversial results. Some studies suggested that depression is associated with hyperglycemia in people with both type 1 and type 2 diabetes, whereas other studies did not find any correlation at all. Although a number of studies have evaluated the association between mental disorders and diabetes, several problems remain. The heterogeneous results may reflect differences in the method of assessment (self-report questionnaire versus standardized clinical interview), sample differences (community versus clinical samples), type of

diabetes (type 1 versus type 2), and definition of the mental disorders. The prevalence of depression varies systematically as a function of the assessment method. The prevalence rates are two to three times higher in studies that use self-report measures versus diagnostic interviews. Substantially higher prevalence rates are obtained in clinical samples than in community samples.⁶⁻⁹

In the present study, Anxiety disorder and depression was seen in 21.42 percent and 28.57 percent of the diabetic patients with psychiatric illness. Adjustment disorder and delirium was seen in 14.28 percent of the diabetic patients each with psychiatric illness. Chaudhry R et al assessed the prevalence of psychiatric morbidity among diabetic patients using standardized rating scales for depression and anxiety. One hundred diagnosed patients of diabetes were assessed on the Hamilton rating scale for depression and the Hamilton rating scale for anxiety, who were attending the diabetic clinic. They were assessed on sociodemographic profile, duration of illness, type of treatment, and oral vs insulin, and then the data were analyzed on different domains. About 84% of the patients had comorbid depression. Females showed a high percentage of depression and anxiety, and the severity level was also higher in the females.¹⁰

CONCLUSION

From the above results, the authors conclude that significant proportion of diabetic patients is affected with psychiatric illness. Also, it was seen that psychiatric illness was more common among diabetic patients of elderly age group and of longer duration of diabetes.

REFERENCES

1. Goldney RD, Phillips PJ, Fisher LJ, Wilson DH. Diabetes, depression, and quality of life: a population study. *Diabetes Care* 2004;27:1066-70.
2. Hutter N, Schnurr A, Baumeister H. Healthcare costs in patients with diabetes mellitus and comorbid mental disorders--a systematic review. *Diabetologia* 2010;53:2470-9.
3. Gonzalez JS, Safren SA, Cagliero E, Wexler DJ, Delahanty L, Wittenberg E, et al. Depression, self-care, and medication adherence in type 2 diabetes: relationships across the full range of symptom severity. *Diabetes Care* 2007;30:2222-7.
4. Wang MY, Tsai PS, Chou KR, Chen CM. A systematic review of the efficacy of non-pharmacological treatments for depression on glycaemic control in type 2 diabetics. *J Clin Nurs* 2008;17(19):2524-30.
5. Maia ACCDO, Braga ADA, Brouwers A et al. Prevalence of psychiatric disorders in patients with diabetes types 1 and 2. *Compr Psychiatry*. 2012 Nov;53(8):1169-73.
6. Bellach B: Der Bundesgesundheits survey. *Das Gesundheitswesen*. 1998; 60:59-114.

7. Thefeld W, Stolzenberg H, Bellach BM: Bundes-Gesundheits survey: response, zusammensetzung der teilnehmer und non-responder-analyse. Das Gesundheitswesen. 1999; 61:57–61.
8. Lustman PJ, Griffith LS, Freedland KE, Kissel SS, Clouse RE: Cognitive behavior therapy for depression in type 2 diabetes: a randomized controlled trial. Ann Intern Med. 1998; 129:613–21.
9. Wittchen H-U, Mueller N, Storz S: Psychische störungen: häufigkeit, psychosoziale beeinträchtigungen und zusammenhänge mit körperlichen erkrankungen. Das Gesundheitswesen.1998; 60:95–100.
10. Chaudhry R, Mishra P, Mishra J, Parminder S, Mishra BP. Psychiatric morbidity among diabetic patients: A hospital-based study. Ind Psychiatry J. 2010;19(1):47-9.

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