

Evaluation of Incidence of Anxiety and Depression Among Diabetics at a Tertiary Care Hospital

Tanu Singh

Assistant Professor, Department of Psychiatry,
Narayan Medical College & Hospital, Jamuhar, Sasaram, Bihar, India.

ABSTRACT

Background: Type 2 diabetes accounts for ~90–95% of those with diabetes, previously referred to as non–insulin-dependent diabetes, type 2 diabetes, or adult-onset diabetes, encompasses individuals who have insulin resistance and usually have relative (rather than absolute) insulin deficiency. Hence, the present study was conducted for assessing the incidence of anxiety and depression among diabetic patients.

Materials & Methods: A total of 100 diabetic patients were enrolled. Complete demographic and clinical details of all the patients were obtained. Only patients with presence of type 2 diabetes were enrolled. A Performa was made and complete psychiatric evaluation of all the patients was done. The correlation of psychiatric illness with duration of diabetes was done with the aims of assessing the impact of duration of diabetes on mental health.

Results: A total of 100 diabetic patients were enrolled. The mean age of the patients was 48.2 years. Out of 100 patients, 56 patients were males while the remaining were females. Anxiety, depression and combined anxiety depression were seen in 15 percent, 19 percent and 10 percent of the patients

respectively. While assessing the correlation of anxiety and depression with duration of diabetes, significant results were obtained.

Conclusion: Long term diabetes has a significant effect on mental health.

Key words: Anxiety, Depression, Diabetic.


*Correspondence to:

Dr. Tanu Singh,
Assistant Professor,
Department of Psychiatry,
Narayan Medical College & Hospital,
Jamuhar, Sasaram, Bihar, India.

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INTRODUCTION

Type 2 diabetes accounts for ~90–95% of those with diabetes, previously referred to as non–insulin-dependent diabetes, type 2 diabetes, or adult-onset diabetes, encompasses individuals who have insulin resistance and usually have relative (rather than absolute) insulin deficiency. At least initially, and often throughout their lifetime, these individuals do not need insulin treatment to survive. Most patients with this form of diabetes are obese, and obesity itself causes some degree of insulin resistance. Patients who are not obese by traditional weight criteria may have an increased percentage of body fat distributed predominantly in the abdominal region. Ketoacidosis seldom occurs spontaneously in this type of diabetes; when seen, it usually arises in association with the stress of another illness such as infection.¹⁻³

In 2005, an estimated 1.5 million new cases of diabetes were diagnosed. Although the incidence (or new cases of diabetes) describes increases in the number of people affected by the disease, the prevalence (or existing cases of diabetes) describes the overall burden of the disease in the population. Two population-based sources of data on diabetes, the National Health

Interview Survey (NHIS) and the Behavioral Risk Factor Surveillance System (BRFSS), provide data on the prevalence of diabetes in the United States. Although these sources provide accurate self-reported data about diabetes for the United States, they have been limited to reporting the prevalence of diagnosed diabetes because they assess whether a person has been told by a physician or health care professional that he or she has diabetes.⁴⁻⁶ Hence; the present study was conducted for assessing the incidence of anxiety and depression among diabetic patients.

MATERIALS & METHODS

The present study was conducted in the Department of Psychiatry, Narayan Medical College & Hospital, Jamuhar, Sasaram, Bihar (India) to assess the incidence of anxiety and depression among diabetic patients.

A total of 100 diabetic patients were enrolled. Complete demographic and clinical details of all the patients were obtained. Only patients with presence of type 2 diabetes were enrolled. A

Performa was made and complete psychiatric evaluation of all the patients was done. The correlation of psychiatric illness with duration of diabetes was done with the aim of assessing the impact of duration of diabetes on mental health. All the results were recorded in Microsoft excel sheet and were subjected to statistical analysis using SPSS software. Univariate analysis was done for assessment of level of significance.

RESULTS

The mean age of the patients was 48.2 years. Out of 100 patients, 56 patients were males while the remaining were females. Anxiety, depression and combined anxiety depression were seen in 15%, 19% and 10% of the patients respectively. While assessing the correlation of anxiety and depression with duration of diabetes, significant results were obtained.

Table 1: Anxiety and depression

| Variable | Number | Percentage |
|-----------------------------|--------|------------|
| Anxiety | 15 | 15 |
| Depression | 19 | 19 |
| Both anxiety and depression | 10 | 10 |
| Total psychiatric illness | 44 | 44 |

Table 2: Correlation of anxiety and depression with duration of diabetes

| Variable | r-value | p-value |
|-----------------------------|---------|---------|
| Anxiety | 2.131 | 0.001* |
| Depression | 1.958 | 0.000* |
| Both anxiety and depression | -2.411 | 0.000* |
| Total psychiatric illness | 1.358 | 0.003* |

*: Significant

DISCUSSION

Diabetes mellitus is a group of metabolic diseases characterized by hyperglycemia resulting from defects in insulin secretion, insulin action, or both. The chronic hyperglycemia of diabetes is associated with long-term damage, dysfunction, and failure of various organs, especially the eyes, kidneys, nerves, heart, and blood vessels. Several pathogenic processes are involved in the development of diabetes. These range from autoimmune destruction of the β -cells of the pancreas with consequent insulin deficiency to abnormalities that result in resistance to insulin action. Symptoms of marked hyperglycemia include polyuria, polydipsia, weight loss, sometimes with polyphagia, and blurred vision. Impairment of growth and susceptibility to certain infections may also accompany chronic hyperglycemia. Acute, life-threatening consequences of uncontrolled diabetes are hyperglycemia with ketoacidosis or the nonketotic hyperosmolar syndrome.⁷⁻⁹ Hence; the present study was conducted for assessing the incidence of anxiety and depression among diabetic patients.

A total of 100 diabetic patients were enrolled. The mean age of the patients was 48.2 years. Out of 100 patients, 56 patients were males while the remaining were females. Anxiety, depression and combined anxiety depression was seen in 15 percent, 19 percent and 10 percent of the patients respectively. While assessing the correlation of anxiety and depression with duration of diabetes, significant results were obtained. Tan KC et al determined the prevalence of depression, anxiety and stress (DAS) in diabetes patients aged 20 years or more in the primary care setting. They used self-administered questionnaire conducted in eight primary care private and government clinics. The validated DASS-21

questionnaire was used as a screening tool for the symptoms of DAS. A total of 320 patients with diabetes from eight centres were enrolled via convenience sampling. Sample size was calculated using the Kish's formula. The prevalence of DAS among patients with diabetes from our study was 26.6%, 40% and 19.4%, respectively. Depression was found to be significantly associated with marital status and family history of DAS; anxiety was significantly associated with monthly household income, presence of co-morbidities and family history of DAS; and stress was significantly associated with occupation and family history of DAS. The prevalence of DAS was higher in patients with diabetes compared with the general community.¹⁰ Palizgir M et al evaluated the prevalence of depression and anxiety among diabetic patients with regards to some factors such as age, gender, level of education and occupational status. One hundred and eighty-four diabetic patients have participated in this study. To assess the severity of depression and anxiety Beck depression inventory and Beck anxiety inventory questionnaire were used respectively. Binary logistic regressions were used to analyze the data. Their results showed that 70.7% of the diabetic patients suffered from depression. Besides, 69.6% of them were diagnosed with anxiety. According to the result, diabetes related depression is affected by sex (OR: 2.767), age (OR: 2.222), level of education (OR: 4.145) and job status (OR: 3.901). It has been also resulted that gender (OR: 2.274), age (OR: 2.706) and Job Status (OR: 2.441) are the effective factors leading to anxiety. Depression and anxiety have higher prevalence among diabetic patients and some sociological factors such as age, gender, job and education are related to these psychological disorders.¹¹

CONCLUSION

Long term diabetes has a significant effect on mental health.

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