Original Research Article

A study of psychiatric morbidity among patients attending diabetic clinic

P Manmohan Raju

Assistant Professor, Department of Psychiatry, RVM Medical College, Gajwel, Hyderabad, Telangana, INDIA.
Email: pmanmohanraju@gmail.com

Abstract

Background: Diabetes Mellitus (DM), the commonest endocrine system disorder, resulting from diminished insulin action, has for long been associated with psychological factors. Depression and anxiety are commonest of all. **Aim and Objective:** To assess the prevalence and factos affecting prevalence of anxiety and depression in the diabetic patients. **Methodology:** 200 diabetic patients were studied for psychiatric diseases. A pre tested questionnaire was used for data collection which includes sociodemographic data, detailed history. Patients were assessed on the Hamilton rating scale for depression (HDRS) and the Hamilton rating scale for anxiety (HARS) **Results and Discussion:** Overall prevalence among all patients was 83%. Depressed mood was commonest among male contributing 80% while anxiety was commonest among females(80.90%). Genital symptoms are usually reported by males (55.55%) than by females (25.45%). Moderate and severe anxiety was more common in females (20.90% and 20% respectively)
Key Words: psychiatric morbidity, Diabetes Mellitus.

***Address for Correspondence:**
Dr. P Manmohan Raju, Assistant Professor, Department of Psychiatry, RVM Medical College, Gajwel, Hyderabad, Telangana, INDIA.
Email: pmanmohanraju@gmail.com
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INTRODUCTION

According to the WHO, DM can be defined as a heterogeneous metabolic disorder characterized by chronic hyperglycemia with abnormalities of carbohydrate, protein and fat metabolism. It results from defects in insulin secretion, insulin action, or both[1] The association between the diabetes and psychiatric morbidity like depression was first noted in the literature in 1684 when Thomas Willis suggested that diabetes was the result of sadness or prolonged sorrow[2]. Later on many studies found association between them. Lately, many studies have found a frequent co-existence of depression, hyperglycemia, diabetes and diabetes-related complications. Co morbid depression in diabetes has been associated with poorer adherence to diabetes treatment regimens[3] decreased work productivity and increased disability[4], lower quality of life[5] Psychiatric disorders have significant effects on the course and outcome of diabetes. According to some studies depression is a risk factor for the development of diabetes These findings may suggest that there is a bidirectional association between the existence of diabetes and the occurrence of depressive disorders[6] Psychiatric disorders are a major factor causing hospital admissions among diabetic patients. Present study was conducted to find the psychiatric morbidities among these diabetic patients and factors affecting them.

MATERIAL AND METHODS

The prospective study was carried out in a tertiary care center. Patients attending diabetic clinic were enrolled. Total 200 patients were studied during one year study period.

Inclusion Criteria

1. Patients of both sexes above the age of 20 years at the time of study.
2. Patients having diagnosis of diabetes.
3. Patients with absence of diagnosis of depression/ anxiety before the diagnosis of DM.

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Exclusion Criteria

1. Associated drug and alcohol dependence
2. Any other major psychiatric illness, like Schizophrenia and mental retardation.
3. Patients with severe cognitive impairment.
4. Patient already on any psychotropic drug.
5. Patient not willing to participate 6. Patient who have not given consent

The study was approved by ethical committee of the center. A valid written consent was taken from the patients after explaining the study. A pre tested questionnaire was used for data collection which includes sociodemographic data, detailed history including Family history, type of treatment, whether oral hypoglycemic drugs or injectable insulin. Patients were assessed on the Hamilton rating scale for depression (HDRS) and the Hamilton rating scale for anxiety (HARS)[7.] The data were analyzed by appropriate statistical methods.

RESULTS

Table 1 shows distribution of patients according to sociodemographic factors and duration of illness. Majority of the patients were above age of 50 yrs. Males above 50 yrs contribute 52.23% and females contribute 59.09%. In education most of the males (47.78%) belong to above 10th standard and up to graduation. Females also follow same pattern contributing 50.91%. in males 48.89% had diabetes since 2-10 years. In case of females most patients showed duration of illness 2-10 years. According to table 2 prevalence of depression among diabetic male was78.89%, in that of female was 86.36%. Overall prevalence among all patients was 83%. On HDRS mild depression was more common among male (32.23%) as compared to female (14.55%). Moderate depression was more common in females (35.45%) as compared to males (21.11%). Severe depression was 17.78% in males and 22.72% in females. Very severe depression was almost common in both genders. Table 3 shows Comparative distribution of positive rating on the symptom checklist of HDRS between males and females. Depressed mood was commonest among male contributing 80% while anxiety was commonest among females (80.90%). Other symptoms like insomnia, suicide, GI symptoms and genital symptoms (loss of libido) were seen. Genital symptoms are usually reported by males (55.55%) than by females (25.45%). Table 4 shows distribution of patients according to Hamilton rating scale. Majority of males (82.22%) showed mild anxiety. Moderate and severe anxiety was more common in females (20.90% and 20% respectively) than in males (8.89% and 8.89% repectively).

Table 1: Distribution of patients according to various factors

Sr no	Factors	Males (90)(100%)	Females (110)(100%)
1	AGE		
2	<30 yrs	13(14.44%)	09(8.18%)
3	30-50 rs	30(33.33%)	36(32.73%)
4	>50 yrs	47(52.23%)	65(59.09%)
5	Education		
6	Upto 10th std	33(36.67%)	42(38.18%)
7	10 th std – graduation	43(47.78%)	56(50.91%)
8	> graduation	14(15.55%)	12(10.91%)
9	Duration of illness (DM)		
10	2-10 yrs	44 (48.89%)	51(46.36%)
11	11-20 yrs	35(38.89%)	45(40.91%)
12	20-30 yrs and more	10(11.12%)	14(12.73%)

Table 2: Distribution of patients according to Hamilton depression rating scale for depression

Sr no	Scale	Males (90)	Females(110)	Total (200)
1	< 8 (no depression)	19(21.11)	15(13.64%)	34
2	8-13 (mild depression)	29(32.23)	16(14.55%)	47
3	14-19(moderate depression)	19(21.11)	39(35.45%)	58
4	20- 22(severe depression)	16(17.78%)	25(22.72%)	41
5	>23(very severe depression)	15(16.67%)	15(13.64%)	30

Table 3: Comparative distribution of positive rating on the symptom checklist of HDRS between males and females

Sr no	Symptoms on HDRS	Males (90)	Females (110)
1	Depressed mood	72 (80)	78(70.90%)
2	Suicide	19(21.11)	11(10%)
3	Insomnia	31(34.44%)	44(40%)
4	Anxiety	64(71.11%)	89(80.90%)
5	Somatic symptoms – gastrointestinal	45(50%)	65(59.09%)
6	genital symptoms	50(55.55%)	28(25.45%)

Table 4: Distribution of patients according to Hamilton anxiety rating scale

Sr no	Anxiety	Males	Females	Total
1	<17 (mild)	74(82.22%)	65(59.09%)	139(69.5%)
2	18–24 (moderate)	08(8.89%)	23(20.90%)	31(15.5%)
3	25 (severe)	08(8.89%)	22(20%)	30(15%)
4	Total	90(100%)	110(100%)	200(100%)

DISCUSSION

Prevalence of depression among diabetic male was 78.89%, in that of female was 86.36%. Overall prevalence among all patients was 83%. Similar findings were seen in previous studies.[8,9,10] Studies like Geffken G *et al*, Surridge DH *et al* have also shown high prevalence of depression in diabetic patients.[11,12] Depressed mood was commonest among male contributing 80% while

anxiety was commonest among females(80.90%). Genital symptoms are usually reported by males (55.55%) than by females (25.45%). Similar findings were observed in Sorren Buus,[13] where he observed genital symptoms more in males than females. Majority of males (82.22%) showed mild anxiety. Moderate and severe anxiety was more common in females (20.90% and 20% respectively) than in males (8.89% and 8.89% repectively). Similar findings were seen in Anderson RJ *et al*, Katon W *et al*, and Roupa Z *et al*[14,15,16]

CONCLUSION

All diabetic patients should be routinely screened for depression. mental health should be included in diabetes prevention programs. Primary care providers should manage these conditions and provide integrated care including physical and mental health.

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