

Original Research Article

A cross sectional study on psychological status among patients with diabetes mellitus in Kancheepuram district

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ABSTRACT

Background: Diabetes is a chronic disease that occurs either when the pancreas does not produce enough insulin or when the body cannot effectively use the insulin it produces. Psychiatric problems are common in diabetes mellitus and nearly 33% suffer from mental disorders. According to the NHS people with diabetes are twice as likely to suffer with depression. The aim and objective of the study was to assess the psychological status in patients with diabetes mellitus.

Methods: The sample of 100 participants was involved in the study. The patients with diabetes mellitus are included in the study but with known psychiatric disturbances were excluded from the study. Standardized questionnaire was used for assessment. The collected data entered in MS-Excel and the analysis done using the SPSS.

Results: Depression is the most common emotional disturbance among the female participants with diabetes while anxiety is common among the male subjects, prior with 58.2% and later with 54.5%. The emotional status of diabetic patient and their religion have a significant association with p-value 0.02.

Conclusions: Emotional disturbances are common among the diabetic patients and the study revealed depression is common among the female participants whereas anxiety is the common psychiatric problem among males.

Keywords: Emotional status, Depression, Anxiety, Diabetes mellitus

INTRODUCTION

Diabetes is a chronic disease that occurs either when the pancreas does not produce enough insulin or when the body cannot effectively use the insulin it produces.¹

Almost 300 million people worldwide have diabetes.² In India, diabetes currently affects >62 million, which is >7.1% of adult population.³ Nearly 1 million Indians die due to diabetes every year.⁴

Many individuals living with diabetes have difficulty achieving recommended standards for diabetes management. Long-term medication use and non pharmacological management including mainly the

lifestyle change are necessary for the successful management. Psychiatric problems are common in diabetes mellitus and nearly 33% suffer from mental disorders. The serious psychiatric disorders (depression, anxiety and other disorders) have been reported in 10.4 per cent cases with diabetes. The stress of managing diabetes every day and the effects of diabetes on the brain may contribute to depression.

According to the NHS people with diabetes are twice as likely to suffer with depression. Evidence presented by the National Diabetes Support Team indicate that treating depression can not only improve quality of life but could also significantly reduce the risk of complications.⁵

In view of the above, it was considered to perform a study of diabetes mellitus patient to know the emotional status of diabetes mellitus.

Aims and objective

To assess the psychological status in patients with diabetes mellitus.

METHODS

A study was conducted among the diabetic patients who attended the NCD clinic in the rural field practicing area of Chettinad hospital and research institute, during the period of 3 months from October 2016 to December 2016. The sample of 100 participants was involved in the study. The patients with diabetes mellitus but not other illness are included in the study and the participants with known psychiatric disturbances prior to the diagnosis of diabetes mellitus and on treatment were excluded from the study. Standardized questionnaire was used for assessment. The collected data entered in MS-Excel and the analysis done using the SPSS, a statistical package. Results are represented in the form of tables and graphs.

RESULTS

Table 1: Frequency distribution of participants based on the demographic profile.

Demographic profile	Frequency
Age (years)	
<40	16
41-50	23
51-60	39
>60	22
Gender	
Male	42
Female	58
Religion	
Hindu	84
Christian	11
Muslim	5

Among 100 study participants, majority of them was females with 58% and males 42%, 84% of the participants belong to Hindu community whereas 11% were from Christianity and the least 5% from Muslim religion. Among the participants most of them was in the age group 51-60 years with 39% followed by the age group 41-50 years with 23%, 22% was in the group more than 60 years of age and the least 16% was in the age group less than 40 years of age.

Among the study participants, the majority of the participants presented with depression were in the age group 51-60 years with 38.8% followed by the group more than 60 years of age with 23.9% and 16.4% in the age group 41-50 years and less than 40 years each. 58.2% were females and 41.7% was males. 85.1% belong to the Hindu community while 14.9% was from the Christian community. Most of the participants who had anxiety was in the age group 41-50 years with (36.4%) followed by participants more than 60 years of age with 27.3% and 18.2% subjects with anxiety was in the group 51-60 years and less than 40 years. 54.5% male and 45.5% female. 72.7% belong to Hindu religion followed by 18.1% from Muslim community and 9.1% belong to Christianity. Among participants who were not concerned about the disease 50% was in the age group 51-60 years while 16.7% each in the remaining age group were too not worried about their mental status regarding the disease. 33.3% subjects are male and 72.7% are female participants. 83.3% belong to Hindu while 16.7% were from the Muslim community. Coming to the participants who had other emotional disturbances 50% was in the age group 51-60 years followed by 30% subjects in the group 41-50 years and 10% in less than 40 years and more than 60 years. 40% of the study subjects are male and remaining 60% are females. 90% of them belong to Hindu and 10% were from the Muslim community. No association noted between the age group ($p=0.865$), gender of the participant ($p=0.77$) and the emotional status but the significant association was noted between the religion and the emotional disturbances with $p=0.024$.

Table 2: Distribution based on the age group of the participants.

	Less than 40 years	41-50 years	51-60 years	More than 60 years
	N (%)	N (%)	N (%)	N (%)
Gender				
Male	4 (25)	11 (47.82)	16 (41.02)	11 (50)
Female	12 (75)	12 (52.17)	23 (58.97)	11 (50)
Religion				
Hindu	14 (87.5)	19 (82.6)	33 (84.6)	18 (81.8)
Christian	1 (6.25)	2 (8.6)	5 (12.8)	3 (13.63)
Muslim	1 (6.25)	2 (8.6)	1 (2.56)	1 (4.54)

Table 3: Showing association between the emotional status and the demographic profile.

Demographic profile	Emotional status				Chi -square	P value
	Depression	Anxiety	Not concerned	Others		
Gender						
Male	28 (41.7)	6 (54.5)	4 (33.3)	4 (40)	1.098	0.77
Female	39 (58.2)	5 (45.5)	8 (72.7)	6 (60)		
Age group (years)						
<40	11 (16.4)	2 (18.2)	2 (16.7)	1 (10)	4.636	0.865
41-50	14 (16.4)	4 (36.4)	2 (16.7)	3 (30)		
51-60	26 (38.8)	2 (18.2)	6 (50)	5 (50)		
>60	16 (23.9)	3 (27.3)	2 (16.6)	1 (10)		
Religion						
Hindu	57 (85.1)	8 (72.7)	10 (83.3)	9 (90)	14.553	0.024
Christian	10 (14.9)	1 (9.1)	0	0		
Muslim	0	2 (18.1)	2 (16.7)	1 (10)		

DISCUSSION

Emotional status in patients with diabetes mellitus is disturbed and nearly 33% affect with mental disorder.⁶ The common among them is depression.⁷ The prevalence of depression in patients with diabetes mellitus ranges from 3.8% to as high as 49.5%.⁸ In our study it was seen that depression is the most common and the prevalence is high among females than males with 58.2% vs 41.7% and high among the participants in the age group 51-60 years. Anxiety among patients with diabetes is higher than in the general population.⁹ One study estimated that 14% of individuals with diabetes suffered from generalized anxiety disorder, in our study it was noted that anxiety is the second common emotional disturbance which is most common among males than females with 54.5% vs. 45.5% and also more in the age group 41-50 years of age. The depression, anxiety as well as similar other psychiatric symptoms are common in the Hindu community compared to other religions like Christians and Muslims.

CONCLUSION

The study revealed that diabetic patients had emotional disturbances such as depression and anxiety and other psychiatric problems. From this study it is evident that all the patients with the diabetes mellitus should be counseled and should be given supportive psychological treatment since from the time of diagnosis.

Limitations

The study revealed only the emotional disturbance depression and anxiety mainly leaving rest of the psychological disturbances. Detailed study should be conducted to elicit the psychological condition of the diabetic patients and the effect of demographic profile over the emotional disturbances.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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