

Psychiatric morbidity in patients with diabetes mellitus attending a rural teaching hospital

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Abstract

Background: Diabetes mellitus, a common somatic ailment that can have psychological ramifications, is caused when insulin does not operate as well as it should. Diabetes is caused by insulin not working as effectively as it should. It is gradually gaining a reputation as a possible epidemic on a scale that encompasses the entire of the world.

Methods: The Department of Psychiatry at Kamineni Institute of Medical Sciences conducted the study (KIMS). Diabetic patients using general medicine outpatient services cross-sectional research. 100 people between October 2015 and September 2017.

Results: The current investigation was completed by 100 diabetes patients. The majority of the patients were male and primarily in the age range of 41 to 60 years. The majority of the patients were Hindu and they were all from rural areas. The majority of the patients were employed, literate, and from nuclear middle-class homes. The majority of them were married and still were living together. Type II diabetes affected the majority of the individuals. Five years or less were spent unwell. The majority of patients were using oral medications, and diabetes was in remission.

Conclusion: According to the findings of a recent study, more than one-quarter of diabetic patients also suffered from psychological comorbidities. The major depressive illness, anxiety disorders, and substance dependency were the most common types of these conditions.

Keywords: Diabetes mellitus, psychiatry, diabetic patient, anxiety, disorder, psychological

Introduction

Indeed, the mind and the body are interdependent components of the living organism. They cannot be conceived of or understood in isolation for any length of time ^[1-3]. Their interdependence and influence on one another, both in terms of health and illness, does not require any more emphasis ^[5-9]. It is possible for illnesses to present themselves as psychological or physical ailments, but the latent relationship between the two is subtle and cannot be denied. It's possible that this simple fact is where psychosomatic medicine got its start ^[10-12]. Diabetes mellitus, which is caused by insulin not working as well as it should, is a common somatic illness that can have psychological repercussions ^[13]. It is rapidly establishing a reputation as a potential epidemic on a global scale. The number of diabetic patients in India is currently above 62 million, putting it in second place ^[14-17]. It's possible

that by the year 2030, that number may reach an astounding 79.4 million. Both endocrinologists and specialists working in the field of mental health have been captivated for a significant amount of time by the correlation between diabetes and psychological disorders [18-21]. It is common knowledge and frequently reported that diabetic individuals have an increased risk of developing psychological illness [22]. It has also been discovered that the prevalence of diabetes mellitus in those who are receiving treatment for mental health issues is anywhere from two to eight times greater than in the general population. Diabetics who are dependent on insulin are more likely to have symptoms of depression and anxiety than those who are not [23-28]. A recent population-based study in the United States that included 4319 people found that roughly one third of them had mental problems. In yet another major study conducted in New York City, 10.4% of diabetic patients reported experiencing some form of psychological distress, such as depression, anxiety, or other illnesses [29-35].

Depression is more common in diabetics than it is in the general population by a factor of two. The danger is greater for females than it is for males [36]. Irritability, anxiety, depression, suicidal ideation, and cognitive deficiencies are all examples of common mental symptoms [37]. Neuropsychiatric issues, such as diabetic peripheral neuropathy and erectile dysfunction, are also highly common among those who have diabetes. Other contributing elements include a favourable family history, ethnicity and genetics [38-40]. Psychosocial stress has a major influence in the aetiology, course, and outcome of diabetes. Other contributing factors include environmental and lifestyle factors, positive family history and ethnicity. Diabetes and psychiatric problems may have a mutually influential relationship, in which both conditions act as a source of inspiration for the other in a variety of different ways [41, 42]. In addition, these disorders place a significant strain on society and the economy, which will become an even greater obstacle in the not too distant future. Additional research in this field will unquestionably be of great use in formulating strategies for corrective actions [43, 44].

The current study, despite its modest size, was carried out in a rural setting, making it an important step in the right direction [45]. The aim of the study is to screen and study patients with diabetes mellitus for psychiatric morbidity at a rural teaching hospital. The objectives of the present study are, to study the frequency of psychiatric comorbidity in patients with diabetes. To study the psychiatric profiles of diabetic patients in relation to socio-demographic features. To evaluate the correlations among psychiatric morbidity, diabetes and other medical comorbidities.

Methods

Study was done at Department of Psychiatry Kamineni Institute of Medical Sciences (KIMS). Diabetic patients attending outpatient services of General Medicine Cross sectional study. Oct 2015 to Sep 2017, total 100 in number.

Inclusion criteria

- Diabetic patients in the age group of 20 to 60 yrs.
- Both sexes included.
- Diabetic patients willing to participate in the study.

Exclusion criteria

- Patients unwilling to participate in the study.
- Gestational diabetes mellitus.
- Patients requiring hospitalization for any associated serious condition.

Procedure of data collection

After obtaining clearance from Institutional Ethics Committee, consecutive patients with a diagnosis of diabetes mellitus from the outpatient services of unit 6 of general medicine were serially included into the present study. Subjects, willing to participate in the study, were assured of their confidentiality and informed consent was taken from them. Patients' medical profiles consisting of details of diabetes like duration, type, ongoing treatment, present status of diabetes, current and past medical comorbidities are perused and noted. Sociodemographic features and psychosocial history are recorded in the intake pro forma.

Objective data was taken from the attendants to confirm and add details to the clinical history. With the help of M.I.N.I (version 6.0.0) the selected patients were screened for axis 1 psychiatric disorders of ICD-10. They were next seen by a senior qualified psychiatrist of the department and evaluated for the presence of psychiatric morbidity during a detailed mental status examination. With the help of ICD 10 criteria, clinical psychiatric diagnoses were made after completion of study, observation and results are tabulated and discussed in light of reviewed literature. Statistical Package for Social Sciences (SPSS) software is used for data analysis.

Results

Sociodemographic profile

Table 1: Age wise distribution (N = 100)

S. No.	Age groups (in years)	Male (%)	Female (%)	Total (%)
1	20-40	15 (28.3)	11 (23.4)	26 (26)
2	41-60	38 (71.7)	36 (76.6)	74 (74)
	Total	53 (100)	47 (100)	100 (100)

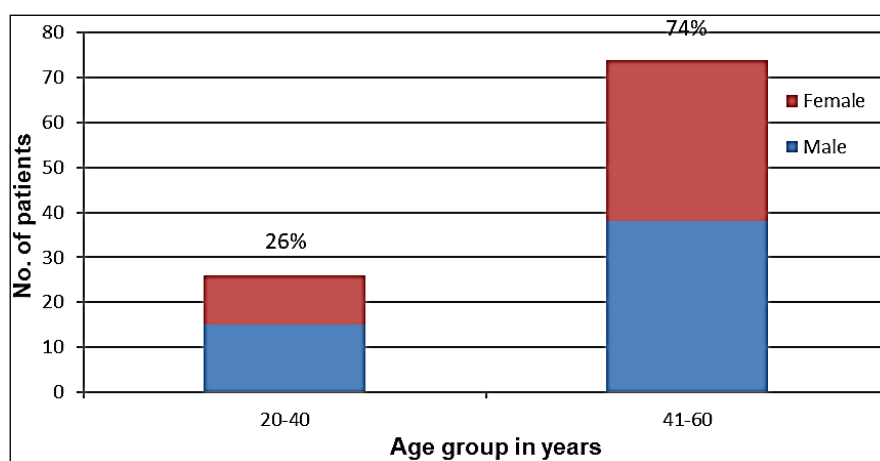


Fig2: Mean age of the study population is 48.33 +/- 9.15. 74 (74%) of the patients were in the age group of 41-60.

Table 2: Gender wise distribution (N = 100)

S. No.	Gender	Total	N (%)
1	Male	53	53
2	Female	47	47
	Total	100	100

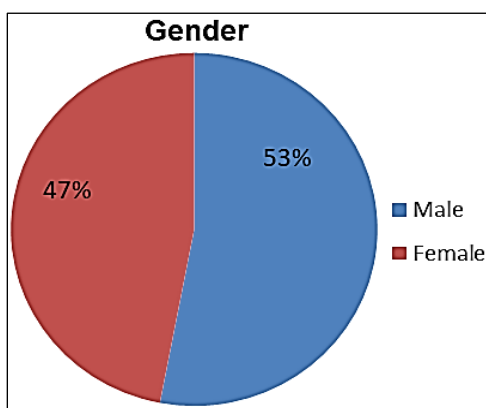


Fig2: 53(53%) of the patients are males and 47(47%) of the patients are females

Table 3: Religion wise distribution (N = 100)

S. No	Religion	Male'sn (%)	Femalesn (%)	TotalN (%)
1.	Hindu	48 (90.6)	36 (76.6)	84 (84)
2.	Muslim	02 (3.8)	03 (6.4)	05 (5)
3.	Christian	03 (5.7)	08 (17)	11 (11)
Total		53(100)	47(100)	100(100)

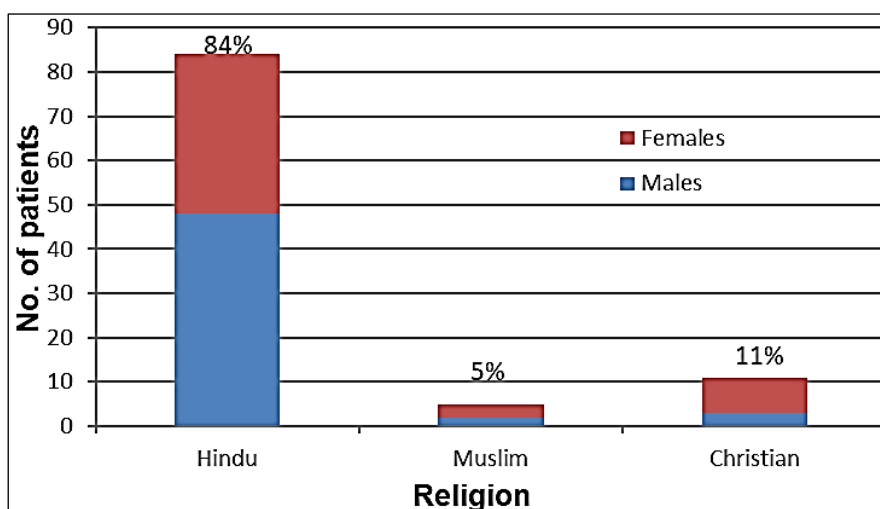


Fig3: 84(84%) of the patients were Hindus and rest belonged to other religions

Table 3: Distribution according to marital status (N = 100)

S. No.	Marital status	Malesn (%)	Femalesn (%)	TotalN (%)
1.	Married living with spouse	46 (86.8)	36 (76.6)	82(82)
2.	Others (separated/divorced/widow)	04 (7.5)	08 (17)	12(12)
3.	Unmarried	03 (5.7)	03 (6.4)	06 (6)
Total		53 (100)	47 (100)	100(100)

94(94%) patients were married while 82(82%) of them were living with spouse.

Table 5: Distribution according to place of residence (N = 100)

S. No.	Domicile	Malesn (%)	Femalesn (%)	TotalN (%)
1.	Rural	53 (53)	47 (47)	100 (100)
2.	Urban	--	--	--
Total		53 (53)	47 (47)	100 (100)

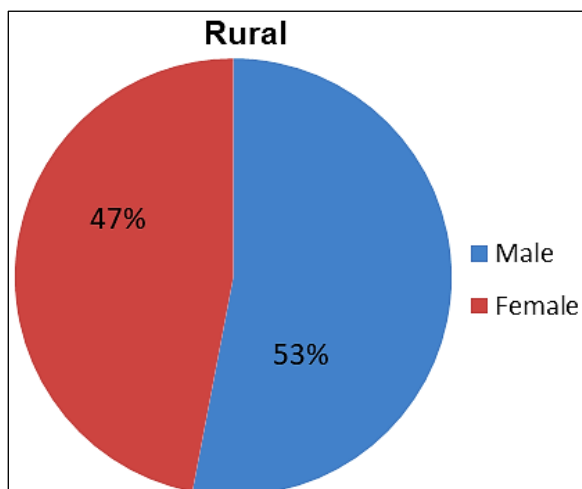


Fig5: All of the patients were from rural area

Table 6: Distribution according to level of education (N=100)

S. No.	Education	Males N (%)	Females N (%)	Total N (%)
1.	Illiterate	06 (11.3)	21 (44.7)	27 (27)
2.	Literates - School	30 (56.6)	23 (48.9)	53 (53)
	College	17 (32.1)	03 (6.4)	20 (20)
Total		53 (100)	47 (100)	100 (100)

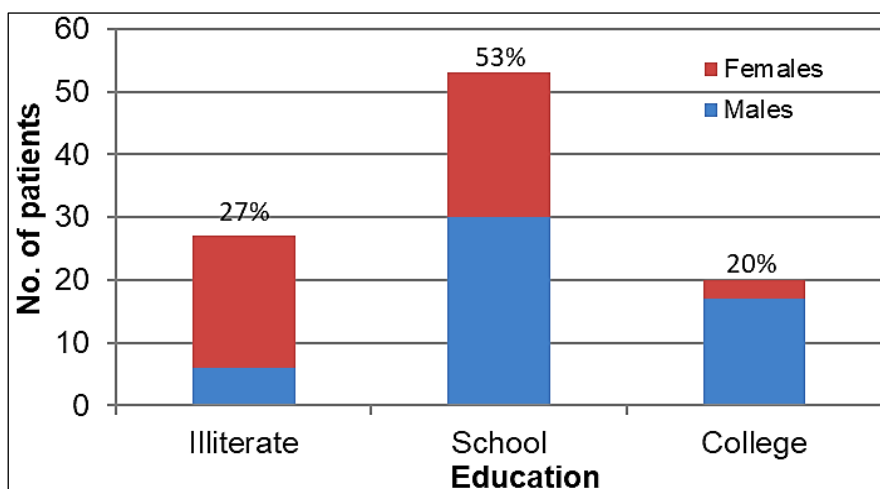


Fig6: 3(73%) of the patients were literates

Table 7: Distribution according to occupation (N=100)

S. No.	Occupation	Income	Males n (%)	Females n (%)	Total N (%)
1.	Unskilled labourer	Present	2 (3.8)	7 (14.9)	9 (9)
2.	Skilled labourer	Present	7 (13.2)	1 (2.1)	8 (8)
3.	Agriculture	Present	24 (45.3)	9 (19.1)	33 (33)
4.	Professional	Present	4 (7.5)	1 (2.1)	5 (5)
5.	Business	Present	13 (24.5)	2 (4.2)	15 (15)
6.	Others	Present	00	2 (4.2)	2 (2)
7.	Homemaker	Absent	00	24 (51.1)	24 (24)
8.	Unemployed	Absent	3 (5.7)	1 (2.1)	4 (4)
Total			53 (100)	47 (100)	100 (100)

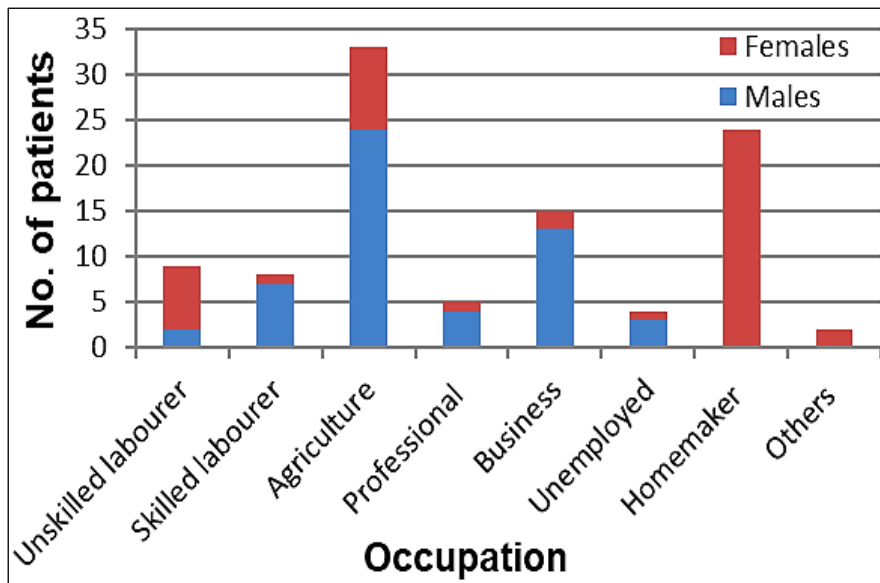


Fig7: 72(72%) of the patients have occupation with income while 28(28%) have no income

Table 8: Distribution according to Socio Economic Status (N=100)

S. No.	Social status	Malesn (%)	Femalesn (%)	TotalN (%)
1.	High	10 (18.9)	05 (10.6)	15 (15)
2.	Middle	36 (67.9)	25 (53.2)	61 (61)
3.	Poor (low)	07 (13.2)	17 (36.2)	24 (24)
Total		53 (100)	47 (100)	100 (100)

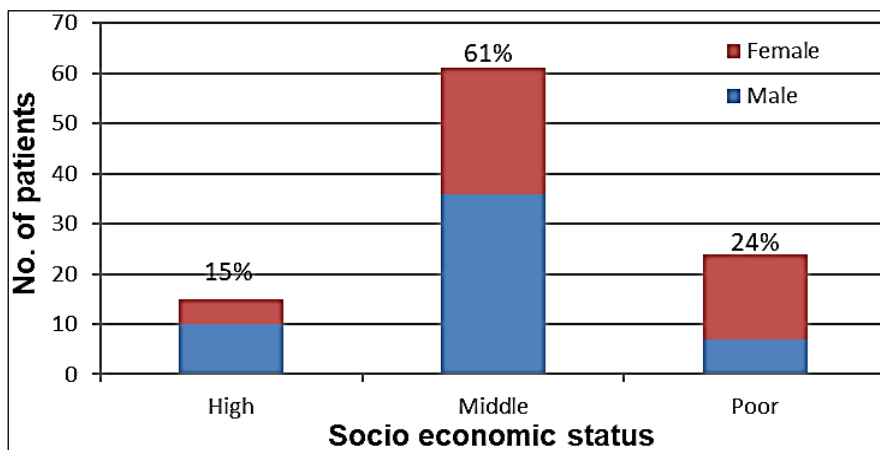


Fig8: 61(61%) of the patients belong to middle class

Clinical profile-diabetes mellitus

Table 9: Distribution according to duration of diabetes (N=100)

S.No.	Duration(in years)	Malesn (%)	Femalesn (%)	TotalN (%)
1	<5	30 (56.6)	33 (70.2)	63 (63)
2	>5	23 (43.4)	14 (29.8)	37 (37)
Total		53 (100)	47 (100)	100 (100)

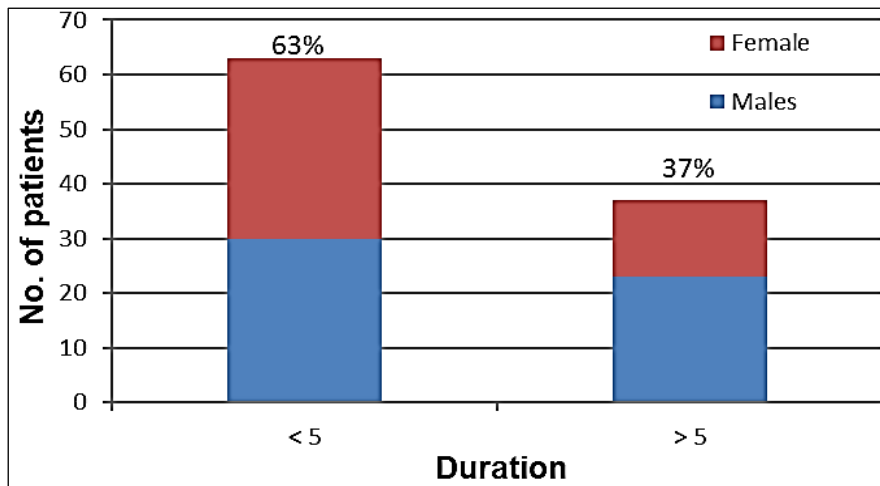


Fig9:63(63%) of patients have duration of 5 or < 5 yrs Mean duration 5.06 +/- 4.95

Table 10: Distribution according to type of diabetes (N=100)

S. No	Type of D.M	Malesn (%)	Femalesn (%)	TotalN (%)
1.	Type - 1	02 (3.8)	01 (2.1)	03 (3)
2.	Type - 2	51 (96.2)	46 (97.9)	97 (97)
Total		53 (100)	47 (100)	100 (100)

Table 11: Distribution according to current status of diabetes (N=100)

S. No	Present status of D.M	Malesn (%)	Femalesn (%)	TotalN (%)
1.	Controlled	31 (58.5)	29 (61.7)	60 (60)
2.	Uncontrolled	22 (41.5)	18 (38.3)	40 (40)
Total		53 (100)	47 (100)	100 (100)

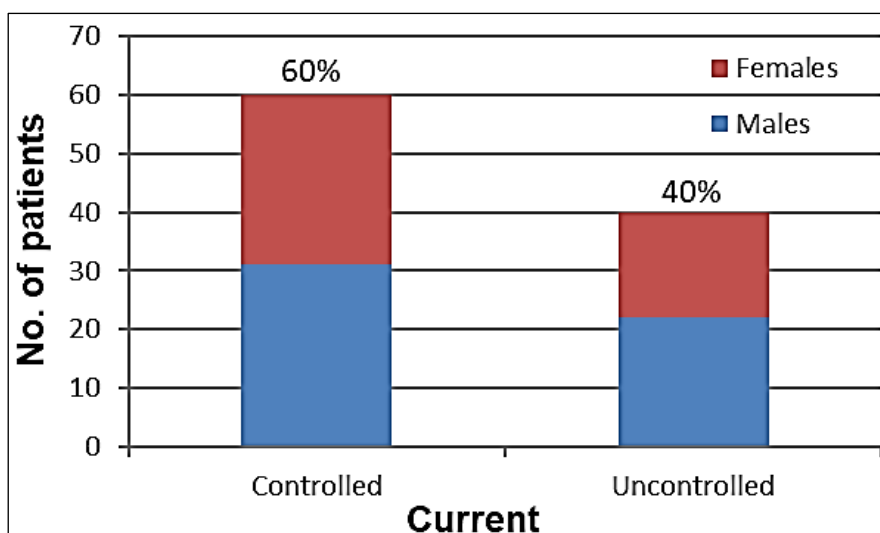


Fig11:In 60(60%) of patient's diabetes is currently under control

Table 12: Distribution according to medical comorbidities (N=100)

S. No	Condition	Malen (%)	Femalen (%)	TotalN (%)
1.	Hypertension	13 (24.5)	08 (17)	21 (21)
2.	Erectile dysfunction	02 (3.8)		02 (2)
3.	Hypothyroidism		01 (2.1)	01 (1)
4.	Arthritis		01 (2.1)	01 (1)

5.	Cataract	01 (1.9)		01 (1)
6.	Hernia		01 (2.1)	01 (1)
7.	No comorbidity	37 (69.8)	36 (76.5)	73 (73)

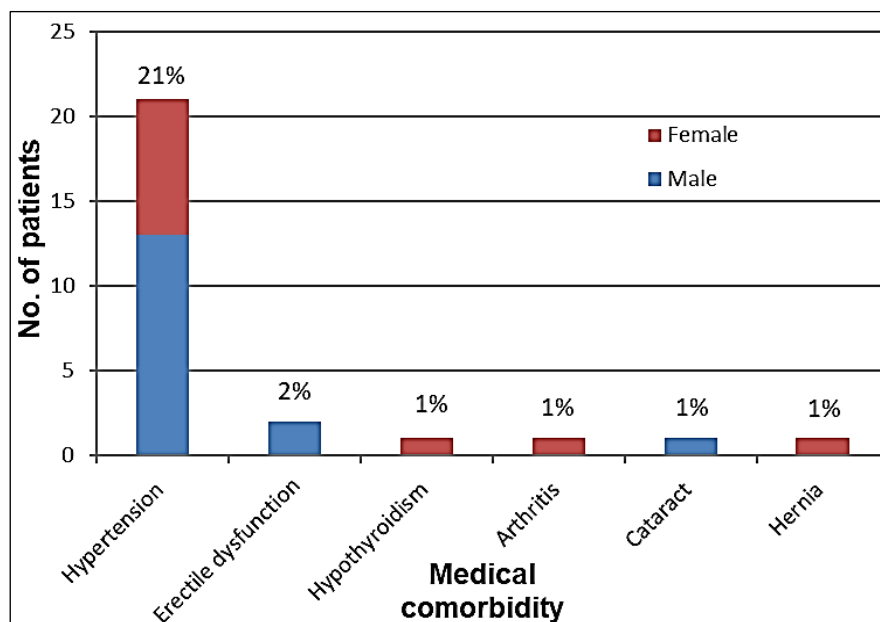


Fig12: 27 (27%) had other medical comorbidities, hypertension being most common

Clinical profile-psychiatric morbidity

Table 13: Distribution of patients as per ICD-10 categories (N=100)

S. No.	ICD-10 categories	Males n (%)	Females n (%)	Total n (%)
1.	Organic mental disorders	--	--	
2.	Substance use disorders	09 (16.9)	--	09 (9)
3.	Psychotic disorders	--	--	--
4.	Mood disorders	04 (7.5)	05 (10.6)	09 (9)
5.	Anxiety and other related disorders	05 (9.4)	04 (8.5)	09 (9)
6.	Behavioral syndromes	--	--	--
7.	Personality disorders	01 (1.9)	--	01 (1)
8.	Nil active psychiatry	34 (64.1)	38 (80.8)	72 (72)
Total		53 (100)	47 (100)	100

Table 14: Distribution of patients as per MINI (version 6.0.0) (N=100)

S.No.	MINI modules	Males n (%)	Females n (%)	Total n (%)
1.	Major depressive disorder	2 (3.8)	2 (4.2)	4 (4)
2.	Suicidality	1 (1.9)	1 (2.1)	2 (2)
3.	Bipolar disorder			
4.	Panic disorder	2 (3.8)	2 (4.2)	4 (4)
5.	Agoraphobia/Social phobia	1 (1.9)		1 (1)
6.	OCD			
7.	PTSD			
8.	Alcohol abuse/dep	11 (20.7)		11 (11)
9.	Other substance abuse/dep	3 (5.6)		3 (3)
10.	Psychotic disorder			
11.	Anorexia nervosa			
12.	Bulimia nervosa			

13.	Generalized anxiety disorder	2(3.8)	2(4.2)	4(4)
14.	ASPD	1(1.9)		1(1)

Table 15: Distribution of psychiatric morbidity (N=100) and M.I.N.I modules vs ICD-10

S.No	Psychiatric morbidity	M.I.N.I modules	ICD-10 diagnoses
1.	Substance abuse	9	9
2.	Depression	4	9
3.	Agoraphobia	1	1
4.	Panic disorder	4	4
5.	Generalized anxiety disorder	4	4
6.	Anti-social personality disorder	1	1
	Nil psychiatry	77	72
	Total	100	100

Psychiatric morbidity in 23 patients (23%) on MINI screening and 28 patients (28%) on ICD-10 evaluation shows good agreement between the two tools.

Data analysis

Table 16: Demographic features and distribution pattern (N = 100)

Demographic features		n (%)	
Age groups (years)	20-40	26 (26)	
	41-60	74 (74)	
Gender	Male	53 (53)	
	Female	47 (47)	
Area	Rural	100 (100)	
Religion	Hindu	84 (84)	
	Muslim	5 (5)	
	Christian	11 (11)	
Marital status	Married	82 (82)	
	Unmarried	6 (6)	
	Others	12 (12)	
Occupation	Income +	Unskilled	9 (9)
		Skilled	8 (8)
		Agriculture	33 (33)
		Professional	5 (5)
		Business	15 (15)
		Others	2 (2)
	Income -	Unemployed	4 (4)
		Homemaker	24 (24)
Family type	Nuclear	92 (92)	
	Joint	8 (8)	
Literacy status	Illiterate	27 (27)	
	Literate	73 (73)	
Socio economic status	High	15 (15)	
	Middle	61 (61)	
	Poor (low)	24 (24)	

Discussion

Table 17: Age distribution (N = 100)

Present study N=100	Dar MM <i>et al.</i> ^[3] N=200	Abdul <i>et al.</i> ^[31] N=80	A.O.Coker <i>et al.</i> ^[33] N=100	D.R.Shakya <i>et al.</i> ^[32] N = 200
41-60y (74%)	41-60y (53%)	40-59y (60%)	30-49y (63%)	>41y (76.5%)

Table 18: Sex distribution (N = 100)

Gender	Present study N=100	Dar MM <i>et al.</i> ^[3] N=200	Avasthiet <i>al.</i> ^[30] N=280	A.O.Coker <i>et al.</i> ^[33] N = 100	Shakya <i>et al.</i> ^[32] N=200
Male	53	43.5	48.9	66	50.5
Female	47	56.5	51.1	34	49.5

In Dar MM *et al.* study, 43.5% were males while 56.5% were females. In Avasthiet *al.* study, 48.9% were males while 51.1% were females. In A.O. Coker *et al.*, 66% were males while 34% were females. In the present study, 53% were males while 47% females, comparable to Shakya *et al.* with males 50.5% and females 49.5%.

Table 19: Marital status (N = 100)

Marital status	Present study N = 100	Dar MM <i>et al.</i> ^[3] N = 200	Avasthiet <i>al.</i> ^[30] N = 280	Abdul <i>et al.</i> ^[31] N = 80	Coker <i>et al.</i> ^[33] N = 100
Married living with spouse	82%	71%	93.6%	43.7%	69%
Widowed/ separated/ unmarried	18%	29%	6.4%	56.3%	31%

In Dar MM *et al.* study, 71% were married living with spouse, 29% were either widowed/separated/unmarried. In Avasthiet *al.* study, 93.6% were married living with spouse, 6.4% were either widowed/separated/unmarried. In Abdul *et al.* study, 43.7% were married living with spouse, 56.3% were either widowed/separated/unmarried. In Coker *et al.* study, 69% were married living with spouse, 31% were either widowed/separated/unmarried. In present study, 82% were married living with spouse and 18% were either separated/widowed/unmarried which is comparable to other studies

Table 20: Education (N=100)

Education	Present study N = 100	Dar MM <i>et al.</i> ^[3] N = 200	Coker <i>et al.</i> ^[33] N = 100
Literates	73%	41.5%	98%
Illiterates	27%	58.5%	2%

In Dar MM *et al.* study, 41.5% were literates while 58.5% illiterates. In Coker *et al.* study, 98% were literates while 2% illiterates. In the present study, 73% were literates while 27% are illiterate. High literacy rate in the present study shows significance in lower psychiatric morbidity.

Table 21: Occupation (N=100)

Study	Present study N = 100	Dar MM <i>et al.</i> ^[3] N = 200	Avasthiet <i>al.</i> ^[30] N = 280	Abdul <i>et al.</i> ^[31] N = 80
Occupation	Agriculture (33%)	Homemaker (53.5%)	Professional (76%)	Homemaker (35%)

In Dar MM *et al.* study, 53.5% were homemakers. In Avasthiet *et al.* study, 76% were professionals. In Abdul *et al.* study, 35% were homemakers. In the present study, 33% of the patients work in agriculture field as many of the people from this region are of agriculture background.

Table 22: Type of family (N = 100)

Type of family	Present study N = 100	Dar MM <i>et al.</i> ^[3] N = 200
Nuclear	92%	75%
Joint	8%	25%

In Dar MM *et al.* study, 75% belong to nuclear family and 25% belong to joint family. In the present study, 92% belong to nuclear family and 8% belong to joint family as many of them are separated from their families after marriage due interpersonal issues and financial problems.

Table 23: Socio economic status (N = 100)

Study	Present study N = 100	Dar MM <i>et al.</i> ^[3] N = 200	Avasthiet <i>et al.</i> ^[30] Nm= 280
Socio economic status	Middle (61%)	Middle (75.5%)	Middle

In Dar MM *et al.* study, 61% belong to middle class status. In Avasthiet *et al.* study, most of them belong to middle class status. In the present study, 61% of the subjects belong to middle class as many of them have good formal education and employment opportunities which are comparable to other studies.

Clinical profile

Table 24: Duration of diabetes (N = 100)

Duration	Present study N = 100	Abdul <i>et al.</i> ^[31] N = 80	Shakya <i>et al.</i> ^[32] N = 200
≤ 5yrs	63%	30%	54%
> 5yrs	37%	70%	46%

In Abdul *et al.* study, 63% have ≤ 5yrs and 37% have >5yrs duration of diabetes. In Shakya *et al.* study, 54% have ≤ 5yrs and 46% have >5yrs duration of diabetes. In the present study, 63% have ≤ 5yrs duration of diabetes while 37% have >5yrs duration which is comparable to Shakya *et al.*

Table 25: Mean duration (N = 100)

Study	Present study N = 100	Abdul <i>et al.</i> ^[31] N = 80	Coker <i>et al.</i> ^[33] N = 100	Shakya <i>et al.</i> ^[32] N = 200
Mean duration	5.06 y	10.1 y	7.7 y	6.5y

In Abdul *et al.* study, mean duration of diabetes was 10.1yrs. In Coker *et al.* study, mean duration of diabetes was 7.7yrs. In Shakya *et al.* study, mean duration of diabetes was 6.5yrs. In the present study, mean duration of diabetes is 5.06 y which is comparable to Shakya *et al.* study.

Table 26: Type of diabetes (N = 100)

Type	Present study N = 100	Coker <i>et al.</i> ^[33] N = 100	Shakya <i>et al.</i> ^[32] N = 200
1.	3%	50%	-
2.	97%	50%	99.5%
Others	-	-	0.5%

In Coker *et al.* study, 50% have type 1 diabetes and 50% have type 2 diabetes so as to compare rationally. In Shakya *et al.*^[32] study, 99.5% have type 2 diabetes and 0.5% having gestational diabetes mellitus. In the present study, 97% have type 2 diabetes and 3% have type 1 diabetes which is comparable to Shakya *et al.* study showing widespread and increased number of type 2 diabetes mellitus in the rural community.

Table 27: Family history of diabetes (N = 100)

Family history	Present study N = 100	Coker <i>et al.</i> ^[33] N = 100
Present	18%	14%
Absent	82%	86%

In Coker *et al.* study, 14% have family history of diabetes while 86% have no family history of diabetes. In the present study, 18% have family history of diabetes while 82% have no family history of diabetes which is comparable to Coker *et al.* study.

Table 28: Medical comorbidities (N = 100)

Study	Present study N = 100	Coker <i>et al.</i> ^[33] N = 100	Abdul <i>et al.</i> ^[31] N = 80
Medical comorbidities	Hypertension 21%	Hypertension 34%	Cataract 15%

In Coker *et al.* study, 34% have hypertension as medical comorbidity. In Abdul *et al.* study, 15% have cataract as medical comorbidity. In the present study, 21% have hypertension as medical comorbidity as diabetes and hypertension occur frequently in general population which is comparable to Coker *et al.* study.

Table 29: Psychiatric morbidity (N = 100)

Present study N = 100	Dar <i>et al.</i> ^[3] N = 200	Avasthiet <i>et al.</i> ^[30] N = 280	Abdul <i>et al.</i> ^[31] N = 80	Coker <i>et al.</i> ^[33] N = 100
28%	57%	31.4	52.5%	10%

In Dar *et al.* study, 57% have psychiatric morbidity. In Avasthiet *et al.* study, 31.4% have psychiatric morbidity. In Abdul *et al.* study, 52.5% have psychiatric morbidity. In Coker *et al.* study, 10% have psychiatric morbidity. In the present study, 28% have psychiatric morbidity which is comparable to Avasthiet *et al.* study.

Table 30: Diagnostic categories (N = 100)

Diagnostic categories	Present study N = 100	Avasthiet <i>et al.</i> ^[30] N = 280	Abdul <i>et al.</i> ^[31] N = 80
Psychotic disorders	--	--	3.8
Mood disorders	9	20.7	16.3
Anxiety and other related disorders	9	14.6	25

Substance use disorders	9	1.8	7.5
Behavioral syndromes	--	0.4	--
Personality disorders	1	--	--

In the present study, most common diagnostic category as per ICD-10 was substance use disorders (9%), mood disorders (9%), anxiety disorders (9%) followed by personality disorders. Substance use disorders were reported in 9% cases, higher than in other studies. This could be because of more prevalence of alcohol use in the community of catchment area.

Table 32: Most common diagnosis (N = 100)

Study	Present study	Dar MM <i>et al.</i> ^[3] N = 200	Abdul <i>et al.</i> ^[31] N = 80	Avasthiet <i>al.</i> ^[30] N = 280
Most common diagnosis	Substance abuse(9%) Depression(9%)	Major depressive disorder (13.5%)	Depression (16.3%)	Depression (14.3%)

In the present study, 9% were diagnosed with depressive disorder which is comparable to Dar MM *et al.*, Abdul *et al.*, Avasthiet *al.* studies. In the present study, substance abuse also topped the list with 9%. It is understandable for higher percentage due to its wide acceptance in the present catchment area.

Table 33: Distribution according to screening tool-M.I.N.I (N = 100)

Psychiatric morbidity	Present study N = 100	Darret <i>al.</i> ^[3] N = 200
MDD	4%	13.5%
Moderate depression	4%	-
Mild depression	1%	-
Suicidality	2%	4%
Panic disorder	4%	6%
Generalized anxiety disorder	4%	5.5%
Agoraphobia	1%	1.5%
Alcohol use disorder	11%	1.5%
Nicotine use disorder	3%	-
Anti-social personality disorder	1%	3%
OCD	-	1.5%
PTSD	-	0.5%
Mixed anxiety depression	-	1.5%
Adjustment disorder	-	7.5%
Specific phobia	-	1.5%
Psychotic disorder	-	0.5%

In the present study suicidality, panic disorder, generalized anxiety, agoraphobia and anti-social personality disorder percentages were comparable to Dar MM *et al.* study.

In the present study, alcohol use disorder and other substance use disorder showed higher percentages than Dar MM *et al.* study due to acceptance of alcohol use in the catchment area is understandable.

Table 34: Psychiatric morbidity vis-a-vis Socio demographic features (N = 100)

Demographic feature	Psychiatric morbidity		p value
	Present	Absent	
Socio economic status	High	2	0.006*
	Middle	24	
	Poor	2	
	Total	28	

*Chi square test

p value <0.05 is significant. Socio-economic status had shown significant relation with psychiatric morbidity perhaps indicating majority of middle-class status being affected due to their high expectations in life leading to a stressful life. Socio economic status had shown significant relation with psychiatric morbidity, comparable to Dar MM *et al.*^[3] study.

Table 36: Psychiatric morbidity Vis-a-Vis select diabetic features (N = 100)

Select features of DM		Psychiatric morbidity		p value
		Present	Absent	
Current status	Controlled	11	49	0.008*
	Uncontrolled	17	23	
Medical comorbidity	Present	11	15	0.025*
	Absent	17	57	

*Chi square test

p value <0.05 is significant. Select features of diabetes like 'current status' and 'medical comorbidities' had shown significant relation with psychiatric morbidity. Significance of current status of diabetes and psychiatric morbidity is seen perhaps showing the control of glycemic levels an important risk factor for psychiatric illness. Significance of medical comorbidity and psychiatric morbidity is seen perhaps showing the increase in medical comorbidities increases the risk of psychiatric illness.

Conclusion

The recent study discovered that more than a quarter of diabetic patients also had psychiatric comorbidities. The most common of these were major depressive disorder, anxiety disorders, and drug dependence. Mental illness and diabetes are linked, and drug abuse is a reflection of the greater societal acceptance of alcohol use in rural settings, which is a factor in both of these conditions. It is long past due for diabetes to be reclassified as a psychosomatic illness rather than its current classification as a somatic ailment. Understanding the function that somato psychic origin or psycho somatic origin plays in diabetes is vital for those working in the medical field.

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