

Original Research Article

Psychiatric morbidity in epilepsy

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ABSTRACT

Background: Psychiatric morbidity occurs more frequently in patients with epilepsy than in the general population. Routine evaluation and treatment of psychiatric morbidity can be helpful in improving epilepsy care but such data are relatively meagre from developing countries.

Methods: The study was conducted in the Epilepsy Clinic of Department of Neurology at a tertiary care hospital over a period of one year. 101 patients were included after fulfilling the inclusion criteria. All the patients seeking treatment in the OPD were screened, assessed and then all procedures were fully explained to them. History regarding name, age sex, socio-demographic profile and detailed history regarding seizure disorder was taken from both the patient and the reliable informant. Bengali version of SRQ-24 was used to screen for psychiatric morbidity.

Results: One hundred and one patients with epilepsy consisting of 70 men (69.3%) and 31 women (30.7%) were included. Their ages ranged from 15 to 52, the mean age being 26.17 (SD = 7.84). Out of the 101 patients, 65 patients (64.4%) were suffering from partial epilepsies and 36 patients (35.6%) were suffering from generalized epilepsies. 50.49% of the subjects screened positive for psychiatric morbidity. Psychiatric morbidity was higher in unmarried, unemployed males from rural background who were suffering from generalized epilepsy and taking multiple antiepileptic medications. Psychiatric morbidity was statistically significant in people with poor education and those born at home ($p < 0.05$) as compared to well educated, institutionally born persons.

Conclusions: 50.49% of the subjects screened positive for psychiatric morbidity.

Keywords: Epilepsy, Psychiatric morbidity, Seizures, SRQ-24

INTRODUCTION

Epilepsy is both a medical diagnosis and a social label.¹ The possibility of recurrent seizures remains a silent, chronic daily hazard for most epilepsy patients. The stigma and underlying worry about epilepsy are not usually considered in the follow-up of these patients. Low self-esteem, lack of independence, need for anti-epileptic drugs, feelings of stigma, problems with marriage and under- or unemployment, etc. are chronic problems frequently faced by patients with epilepsy.

Psychiatric morbidity occurs more frequently in patients with epilepsy than in the general population. Estimates of major depression in epilepsy range from 8% to 48% with a mean of 29% and median 32%.^{2,3} Interictally depression is the most common presentation in persons with epilepsy.⁴

Persons with complex partial seizures have a higher risk of developing depression.⁵ The risk of attempted suicide as well as completed suicide is five times higher than in the general population.⁶

Vuilleumier and Jallon estimated that 20-30% of patients with epilepsy have psychiatric disturbances.⁷ Tucker, in a study reported that 70% of patients with intractable complex partial seizures had one or more diagnoses consistent with Diagnostic and Statistical Manual of Mental Disorders, Revised Third Edition (DSM-III-R). 58% of cases had a history of depressive episodes.⁸ Another perspective regarding the overall psychiatric morbidity was seen in a modern comprehensive epilepsy center inpatient.⁹ The researchers found that 65% patients are in need of psychiatric treatment. The largest proportion of patients with psychiatric disorder had a significant mood disorder (34%).

The present study was planned to assess psychiatric morbidity in epileptic patients and to compare clinical and demographic profiles of those having psychiatric morbidity with those without psychiatric morbidity.

METHODS

This cross-sectional study was conducted in the Epilepsy Clinic of Department of Neurology, at a teaching hospital over a period of one year. The protocol of this study was approved by the institutional ethics committee before the recruitment of the patients in the study. Informed consents were taken from all the patients prior to participation in the study.

The sample was of 101 patients suffering from epilepsy. All the patients coming for treatment in the OPD were screened, assessed and then thoroughly informed about the study. Patients aging more than 15 years who were having seizure disorder for the last one year and were on antiepileptic medication regularly were included in the study.

Understanding of Bengali language and presence of reliable informant were other necessary criteria for inclusion in the study. Seriously ill patients and those with mental retardation and other cognitive deficits were excluded from the study. History regarding name, age sex, socio-demographic profile and detailed history regarding seizure disorder was taken from the patient and the accompanying person.

Standardized Bengali adaptation of SRQ-24 was used to assess psychiatric morbidity. This is a short and easy questionnaire which can be used in for screening of mental disorders. The self-reporting questionnaire (SRQ) contains 24 short questions that requires “yes” or “no” response, depending on the presence or absence of symptoms. It was validated in Bengali in 2003.¹⁰

The obtained data was analyzed using suitable statistical techniques. The Statistical Package for Social Sciences (SPSS) software version 15 was used for all statistical analysis. Values were considered statistically significant when $p < 0.05$.

RESULTS

The sample of the study (n =101) consisted of 70 men (69.3%) and 31 women (30.7%). Their ages ranged from 15 to 52, the mean age being 26.17 (SD = 7.84). Out of the 101 patients, 65 patients (64.4%) were suffering from partial epilepsies and 36 patients (35.6%) were suffering from generalized epilepsies. 32.7% of the subjects were born at home and 67.3% were delivered in institutions. No patient in the study was illiterate, 7.9% had passed primary school, 33.7% had passed secondary school, 22.8% were graduates and 7.9% were post graduates.

Table 1: Correlation between clinical and demographic parameters and psychiatric morbidity.

Clinical/ demographic parameters	Sub groups	Psychiatric morbidity negative	Psychiatric morbidity positive	Pearson chi-square value	DF	P value
Sex	Male	34	36	0.080	1	0.778
	Female	16	15			
Residence	Rural	20	29	2.874	1	0.090
	Urban	30	22			
Marital status	Unmarried	32	41	5.100	3	0.165
	Married	12	6			
	Separated	4	4			
	Widow	2	0			
Education	Primary	2	6	10.500	4	0.033*
	Secondary	16	18			
	H.S.	10	13			
	Graduate	14	14			
	P.G.	18	0			

50.49% of the subjects screened positive for psychiatric morbidity. Psychiatric morbidity was higher in unmarried, unemployed males from rural background who were suffering from generalized epilepsy and taking

multiple antiepileptic medications. Psychiatric morbidity was significantly higher in people with poor education (p value 0.033) and those born at home (p value 0.007).

Table 2: Correlation between clinical and demographic parameters and psychiatric morbidity.

Clinical/demographic parameters	Sub groups	Psychiatric morbidity negative	Psychiatric morbidity positive	Pearson chi-square value	DF	P value
Occupation	Student	14	12	9.875	5	0.079
	Unemployed	8	15			
	Service	12	6			
	Business	8	8			
	House wife	2	8			
	Labourer	6	2			
Type of epilepsy	Partial	34	31	0.573	1	0.449
	Generalized	16	20			
Birth history	Home	10	23	7.230	1	0.007*
	Institutional	40	28			
Type of pharmacotherapy	Monotherapy	14	8	2.247	1	0.134
	Polytherapy	36	43			

*Significant.

DISCUSSION

The sample in this study was small but comparable to that of the other studies from India.^{11,12} The sample (n =101) consisted of 70 men (69.3%) and 31 women (30.7%). Basu et al, found a slightly higher number of female patients (57) in comparison to males (50).¹² Preponderance of male in epilepsy was noted Lenox, Leibowitz et al, Bagadia et al and Kurland.¹³⁻¹⁶ Grower (quoted by Lennox) did not find any difference. Lennox feels that the excess of males may be due to a greater need to maintain employment and hence seeking treatment. He also feels that the greater tendency of males to sustain non-fatal organic damage is probably more important. Our findings showed male preponderance. This was not compared statistically with the male and female attendance at our hospital O.P.D. in general or Neurology OPD which could show if there are real differences between them.

Out of the 101 patients, 65 patients (64.4%) were suffering from partial epilepsies and 36 patients (35.6%) were suffering from generalized epilepsies. Thomas et al, reported generalized epilepsy (GE) in 47 persons and localization-related epilepsy (LRE) in 65 persons.

Self-rated questionnaire (SRQ-24) was administered to assess psychiatric morbidity in this study.¹⁰ This is a self-rated scale comprising of 20 non-psychotics and 4 psychotic items. Cyriac et al, assessed psychiatric morbidity by ICD-10 symptom checklist for mental disorders along with ICD 10 classification of mental and behavioural disorders - diagnostic criteria for research¹⁷.

Breier et al, used depression Scale (2) of the MMPI-2 (Minnesota Multiphasic Personality Inventory)¹⁸. General Health Questionnaire-12 item was used as a screening instrument followed by the Hamilton depression rating scale-17 item to assess depression by Jacob et al.¹¹ General Health Questionnaire-12 is a self-rated scale which does not screen psychosis. Instead of making a psychiatric diagnosis, patients were only screened for psychiatric morbidity in this study.

Jacob et al, carried out similar study comparing fifty subjects with seizure disorder with thirty subjects with bronchial asthma and assessed for depression and suicidal behaviour¹. They found that patients with epilepsy had significantly more depression as compared to bronchial asthma which agrees with findings of previous studies which used controls with a similar handicap.¹⁹ They opined that most depression in epilepsy is an organic mood disorder rather than a reaction to a chronic disability, which probably signifies the depression in epilepsy is more of a biological process. However, their sample like that of Kanjanasilp et al, was smaller when compared to this study.²⁰

Basu et al, reported 66.4% psychiatric morbidity, while 50.49% of our subjects screened positive for psychiatric morbidity.¹² Tucker et al, found that 70% of patients with intractable complex partial seizures had one or more psychiatric diagnoses, 58% had a history of depressive episodes.⁸ Vuilleumier et al, estimated that 20-30% of patients with epilepsy have psychiatric disturbances.⁷ Blumer et al. found that 65% of the inpatients in epilepsy centre require psychiatric treatment - the largest

proportion of patients with psychiatric disorder had a significant mood disorder (34%).⁹

Limitations of this study was as the sample in this study was recruited from a tertiary hospital so findings cannot be generalized to the community. The study was limited to screening for psychiatric morbidity. A study could be planned for assessing different psychiatric illnesses in epilepsy.

CONCLUSION

This study that psychiatric morbidity is significantly higher in epileptic patients with poor education (p value 0.033) and those born at home (p value 0.007) as compared to well educated, institutionally born persons with epilepsy. Psychiatric morbidity is more common in unmarried, unemployed males from rural background who suffer from generalized epilepsy and take multiple antiepileptic medications.

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REFERENCES

1. Jacoby A. Epilepsy and the quality of everyday life: Findings from a study of people with well-controlled epilepsy. *Soc Sci Med.* 1992;34:657-66.
2. Bromfield E, Altshuler L. Cerebral metabolism and depression in patients with complex partial seizures. *Arch Neurol.* 1992;49:617-23.
3. Weigartz P, Siedenberg M. Comorbid psychiatric disorder in chronic epilepsy, recognition and etiology of depression. *Neurol.* 1999;53:3-25.
4. Fenton S, Standage K. Psychiatric symptom profiles of patients with epilepsy, a controlled investigation. *Psychol Med.* 1975;5:152-60.
5. Blumer D. Epilepsy and disorders of mood: Neurobehavioural problems in epilepsy. New York: Raven Press. 1991;185-195.
6. Mathews W, Barabas G. Suicide in epilepsy, a review of literature. *Psychosomatics.* 1981;22:515-24.
7. Vuilleumier P, Jallon P. Epilepsy and psychiatric disorders: epidemiological data. *Rev Neurol.* 1998;154:305-17.
8. Tucker GJ. Seizure disorders presenting with psychiatric symptomatology. *Psychiatr Clin North Am.* 1998;21:625-35.
9. Blumer D, Montouris G, Hermann B. Psychiatric morbidity in seizure patients on a neurodiagnostic monitoring unit. *J Neuropsychiatry Clin Neurosci.* 1995;7:445-6.
10. Choudhury AN, Brahma A, Sanyal D. The validation of the Bengali version of the Self-Rating Questionnaire (SRQ). *Indian J Clin Psychol.* 2003;30:56-61.
11. Jacob R, Kumar SM, Rajkumar R, Palaniappun V. A study to assess depression, its correlates and suicidal behaviour in epilepsy. *Indian J Psychiatry.* 2002;44(2):161-4.
12. Basu S, Sanyal D, Ghosal M, Roy B, Senapati AK, Das SK. Psychometric properties of Bengali version of QOLIE-10 in epileptic patients. *Ann Indian Acad Neurol.* 2008;11:28-32.
13. Lennox WG, Lennox MA. Epilepsy and related disorders J and A. Churchill Ltd., London; 1960.
14. Leibowitz U, Altar MC. Epilepsy in Jerusalem. Israel - A review of case notes and medical records. *Epilepsia.* 1968;9:87.
15. Bagadia VN, Jeste DV, Charegaonkar AS, Pradhan PV, Shah LP. A psycho-social study of 180 cases of epilepsy. *Indian J Psychiatry.* 1973;15:391-401.
16. Kurland LT. The incidence and prevalence of convulsive disorders in small urban community. *Epilepsia.* 1959;1:143-7.
17. Cyriac N, Kunhikoyamu AM, Girija AS. Social factors and psychopathology in epilepsy. *Neurol India.* 2002;50:153-7.
18. Breier JI, Fuchs KL, Brookshire BL, Wheless J, Thomas AB, Jules CJ, et al. Quality of life perception in patients with intractable epilepsy or pseudoseizures. *Arch Neurol.* 1998;55:660-5.
19. Kogeorgos J and Fonagy P. Psychiatric symptom profiles of chronic epileptics attending a neurological clinic, a controlled investigation. *BJP.* 1982;140:236-43.
20. Kanjanasilp J, Khaewwicht S, Richards RME, Preechagoon Y. Thai version of the quality-of-life in epilepsy inventory: comparison between the QOLIE-31 and the QOLIE-10. *CMU J.* 2004;3(1):35-42.

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