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ASSESSMENT OF QUALITY OF LIFE IN EPILEPTIC PATIENTS IN A TERTIARY CARE HEALTH CENTRE A CROSS SECTIONAL STUDY

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ABSTRACT

Background: Assessment of the Quality of Life (QOL) in epilepsy has currently been highlighted to provide thorough care to patients. There are many factors which influence the quality of life of people suffering with epilepsy, including seizure severity, stigma, fear etc. This study was planned to assess the impact of epilepsy on quality of life of epileptic patients. **Methods:** The study was conducted in the department of Psychiatry at a tertiary care hospital over a period of six months. Sixty patients were included in the study after fulfilling the inclusion criteria. All the patients seeking treatment in the Out Patient Department were screened, assessed and then all the procedures were fully explained to them. QOLIE-10 was used to assess the quality of life. **Results:** Sixty patients with epilepsy consisting of 36 men (60.0%) and 24 women (40.0%) were included. Their ages ranged from 12 to 58, the mean age being 28.5 (SD = 8.4). Out of the sixty patients, 35 patients (58.3%) were suffering from partial epilepsies and 25 patients (41.7%) were suffering from generalized epilepsies. Mean QOLIE-10 total scores were 17.76, 17.54, 26.51 and 23.43 in married, widowed, unmarried and separated individuals, respectively. The differences in the means were statistically significant on ANOVA (p value 0.001). Frequency of seizures per month was positively correlated with QOLIE-10 total scores (Pearson Correlation 0.71) and was statistically significant (p value<0.001). **Conclusions:** It was found that the patients having frequent seizures, lower education level and unmarried were having lower quality of life.

KEYWORDS: Epilepsy, Quality of life, Seizures.

INTRODUCTION

Epilepsy has an estimated age-adjusted annual incidence of 30 to 60/100,000 and a prevalence of 6/1,000.[1] Epilepsy affects almost 40 million people worldwide, three-fourths of them remain untreated. Approximately 75% of the 40 million people with epilepsy all over the world are in developing countries. Since the prevalence rate of active epilepsy in India is 5.5/1000, the number of active epilepsy patients in India will about to 5.4 million, i.e., one-eighth of the total epilepsy patients in the world.[2] In spite of the enormous magnitude of the problem, epilepsy can be steered in three-quarters of the patients if early diagnosis and treatment is done.[3]

As epilepsy results in significant psychological and social consequences for everyday living,[4] the illness tends to have lifetime effects on the patient and the family as well. Jacoby[5] described epilepsy as "both a medical diagnosis and a social label." The effects of epilepsy on the patient and the family depends on many factors, including the type and frequency of the seizures, the medication prescribed and its effects on the behaviour and development of the individual and the social impact on the patient and family.[6] An epileptic seizure is "a transient occurrence of signs and/or symptoms due to abnormal excessive or synchronous neuronal activity in the brain". In 2005, the International League Against Epilepsy defined epilepsy as: "a disorder of the brain characterized by an enduring predisposition to generate epileptic seizures and by the neurobiological, cognitive, psychological, and social consequences of this condition. The definition of epilepsy requires the occurrence of at least one epileptic seizure".[7]

The quality of life (QOL) evaluation is a relatively new measure to evaluate the outcome of epilepsy. QOL is influenced by biological factors as well as cultural, social and religious beliefs and values.[8] Many factors influence the quality of life of people with epilepsy, including seizure severity, stigma, fear, and the presence of cognitive or psychiatric problems.[9] Dodrill et al.[10] suggested that seizures may be only one of the several variables that impact the psychosocial functioning of patients with epilepsy. They observed that vocational

adjustment is the most frequently reported factor related to patient psychosocial outcome. Measuring the outcome of epilepsy treatment has traditionally assessed seizure frequency and severity, adverse effects and antiepileptic drug levels. Patients' perceptions often include additional parameters that encompass the effects of epilepsy on daily activities and functions.[11] So, this study was planned to evaluate the impact of epilepsy on quality of life of epileptic patients.

MATERIAL AND METHODS

A cross sectional study was conducted in the department of psychiatry, Indira Gandhi Medical College, Shimla, H.P. a tertiary care hospital over a period of six months. The study was approved by the institutional ethics committee prior to reviewing the patient's medical records. Informed consents were taken from all the patients prior to the commencement of the study.

All the patients seeking treatment in the Out Patient Department services were screened and assessed. The procedure was fully explained to the patients. The patients of age more than 15 years who were having seizure disorder since the last one year and were on antiepileptic medication regularly were included in the study. A total of sixty patients suffering with epilepsy were enrolled. Patients who were seriously ill and having mental retardation and other cognitive deficit were excluded from the study. History regarding name, age, sex, socio-demographic profile and detailed history regarding seizure disorder was taken from both the patient and the guardians. QOLIE-10, a self-administered questionnaire was used to assess the quality of life.[11]

Data was entered in the excel sheet and analysed. In the study various socio demographic and clinical variables were compared by using appropriate statistical methods. Data was analysed using statistical software Epi Info version 7.2.0.1. 2-tailed value of <0.05 was taken as statistically significant.

RESULTS

The study sample (n=60) consisted of 36 men (60.0%) and 24 women (40.0%). Their ages ranged from 12 to 58, the mean age being 28.5 (SD = 8.4). Mean QOLIE-10 total scores were higher in women (23.4) than men (18.6) but there was no any statistically significant was found (p value of 0.09).

Mean QOLIE-10 total scores were 17.76, 17.54, 26.51 and 23.43 in married, widowed, unmarried and separated individuals, respectively. The differences in the means were statistically significant on ANOVA (p value 0.001). Mean QOLIE-10 total scores were 25.68, 18.67, 18.77, 17.23 and 16.42 in primary, secondary, higher secondary, graduate and postgraduate individuals, respectively. The differences were highly statistically significant on ANOVA (p value<0.001). Frequency of seizures per month was positively correlated with QOLIE-10 total scores (Pearson Correlation 0.71) and was highly significant statistically (p value<0.001).

Table 1: Correlation between the clinical and demographic variables and QOLIE-10 total score.

Clinical and demographic parameters	QOLIE- 9 total score	
Age (years)	Pearson correlation	-0.15
	Significance (2-tailed)	0.14
Family income per month (Rs.)	Pearson correlation	-0.19
	Significance (2-tailed)	0.08
Duration of illness (years)	Pearson correlation	0.12
	Significance (2-tailed)	0.25
Period between last attack and interview (Days)	Pearson correlation	-0.19
	Significance (2-tailed)	0.07
Frequency per month	Pearson correlation	0.71*
	Significance (2-tailed)	0.000*

**Highly positive correlation; *Highly significant.

Table 2: Distribution of QOLIE-10 total score with respect to the clinical and demographic variables.

Clinical and demographic variables	Subcategories	N=60	QOLIE-10 total mean	SD	F*	P
Education	Primary	5	25.68	0.48	7.82	0.000*
	Secondary	18	18.67	5.64		
	Higher Secondary	16	18.77	4.82		
	Graduate	18	17.23	4.44		
	Post Graduate	3	16.42	2.54		
Marital status	Unmarried	34	26513	5.32	5.63	0.001*
	Married	16	17.76	2.44		
	Separated	7	23.43	4.52		
	Widowed	3	17.54	0.00		
Occupation	Student	20	20.82	3.82	5.42	0.000*
	Unemployed	14	22.61	4.65		
	Service	11	16.43	3.74		
	Businessman	8	22.44	5.68		
	Housewife	5	20.64	5.42		
	Others	2	10.32	0.49		

*Using ANOVA; **Significant

DISCUSSION

There has been a significant interest and concern regarding the effects of epilepsy on quality of life.[12] While most of these studies have been conducted in the developed countries, studies in India[13] show the unprecedented impact of epilepsy on daily lives of those with the condition. Most of the previous studies on this issue were also carried out in large epilepsy centres.[1,14] Breier et al.[15] compared self-reported quality of life in patients with intractable epilepsy and pseudo seizures.[16] QOLIE-10 was used to assess the quality of life in patients suffering from epilepsy, is a valid and reliable instrument.

The QOLIE-10 can be completed by a patient in several minutes and reviewed rapidly by the physician. This screening tool could provide potentially useful information for initial assessment or follow-up of problem areas that are not commonly evaluated during routine clinical visits with patients with epilepsy.[11] This is a short scale comprising of 10 items. Short form scales correlated well with longer instruments. Djibuti et al.[17] reported a significant higher mean QOLIE scores in women. In the present study, mean QOLIE-10 total scores were higher in women (23.4) than men (18.6) but were not statistically significant (p value 0.09).

Mean QOLIE-10 total scores were 17.76, 17.54, 26.51 and 23.43 in married, widowed, unmarried and separated individuals, respectively. The differences in the means were statistically significant on ANOVA (p value 0.001).This implies that marriage confers some benefit to quality of life. Mean QOLIE-10 total scores were 18.65 and 20.56 in monotherapy and poly therapy groups, the differences were not statistically significant (p value 0.15). However, use of poly therapy was associated with poor quality of life, as reported by Thomas et al.[8]

In our study, mean QOLIE-10 total scores were 25.68, 18.67, 18.77, 17.23 and 16.42 in primary, secondary, higher secondary, graduate and postgraduate individuals, respectively. The differences were statistically significant on ANOVA (p value<0.001).This shows that education improves quality of life. Similar results were reported by the Choi-Kwon S et al.[18] Frequency of seizures per month was positively correlated with QOLIE-10 total scores (Pearson Correlation 0.71) and was highly statistically significant (p value <0.001), as also reported by Thomas et al.[8] and Djibuti et al.[17]

In the present study, duration of illness positively correlated with QOLIE-10 total scores (Pearson Correlation 0.12) and but was statistically insignificant (p value 0.25). Szaflarski et al.[19] found poor quality of life with increase duration of illness. This study showed that increase in family income improves quality of life in epilepsy but the findings were not to be found statistically significant (p value 0.08).

CONCLUSIONS

It can be concluded that quality of life deteriorated with increased frequency of the seizures (p value <0.001), lower education level (p value <0.001) and in unmarried patients (p value 0.001). Married people have good quality of life due to good care by their spouses. Quality of life estimate is a useful outcome measure to assess the epilepsy care from a patient's perspective. It is relatively easy to give out simple self-administered QOL instruments like QOLIE-10 even in busy epilepsy clinics in developing countries like India.

LIMITATIONS

Though done with a sound methodology nonetheless this study has few limitations. Relatively small sample size was one of the major limitations of our study. The study was a cross-sectional one, so, causal modelling could not

be attempted. There was no any control groups, so, comparison between the groups could not be possible.

CONFLICT Of INTEREST

None declared.

ETHICAL APPROVAL

The study was approved by the Institutional Ethics Committee.

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