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The quality of life of chronic epileptic patients in Ibadan, Nigeria

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Summary

Epilepsy is a disease that significantly impairs the quality of life of the sufferers. Measures of quality of life have been developed to assess the overall impact of management on the patients. While studies on quality of life have been previously carried out in Nigerians, a standardised and validated inventory has not been used for this purpose because these are just being developed. Thirty-two epileptics (24 males and 8 females) attending the Neurology clinic of the University College Hospital, Ibadan, were studied. Each subject had complete physical examination and electroencephalography. A short screening quality of life questionnaire (QOLIE 10) was administered to the subjects during routine clinic visits. The commonest aspect of quality of life affected in the subjects was feeling of energy, which was impaired in 15 (46.8%) subjects. This was followed by memory problems in 11 (34.4%). Fear of experiencing the next seizure was reported by eight (25.8%) of subjects. Only five (16.7%) and three (10.3%) of the subjects respectively reported work and social limitations like attending social occasions. No subject reported difficulty with driving or operating machinery, or mental disturbances. Energy and memory deficits are the major problems affecting the quality of life of epileptics in this study. Most subjects did not consider physical and social limitations important.

Keywords: *Quality of life, epilepsy, Nigerians*

Résumé

L'épilepsie est une maladie qui affaiblit significativement la qualité de vie de ses patients, les mesures de la qualité de vie ont été développées pour évaluer les impacts pour le management des patients. Dans cette étude sur les Nigériens, un inventaire standardisé et validé n'a pas été utilisé. Trente deux épileptiques (24 mâles et 8 femelles) en clinique de neurologie du centre Universitaire Hospitalier, Ibadan étaient étudiés. Chaque patient était examiné physiquement, une électroencéphalographie et un questionnaire d'une brève revue de la qualité de vie (QOLIE10) étaient administrés aux sujets durant les visites routine. Le sentiment de déficit d'énergie était l'aspect le plus commun affectant ces sujets (46.8%). Ceci était suivi par des problèmes de mémoire (34.4%) et la peur des crampes (25.5%). Cinq (16.7%) et trois (10.3%) des sujets rapportaient les limitations au travail et aux milieux sociaux respectivement. Aucun des sujets ne rapportait des difficultés en conduite auto, ni en opération des machines, ou des problèmes mental. Les déficiences d'énergie et de perte de mémoire sont des problèmes majeurs affectant la qualité de vie des épileptiques. La plupart des sujets ne considéraient pas les limitations physiques et sociales important.

Introduction

Quality of life refers to all aspects of patient's physical, psychological and social well being [1]. Quality of life measures have been developed to improve patient care by allowing patients to express their concerns about personal morbidity and overall function thereby guiding therapy decisions and improving patients' satisfaction [2-6]. Although these measures are reliable [7], they have not been widely applied in epilepsy no doubt because the systematic assessment of quality of life is still a developing field [5,8,9].

The major domains of quality of life affected in epileptics are safety, physical health, drug side effects, seizure worry, memory, independence, mood, employment, driving, emotional and social functioning as well as health perceptions [4,6,10,11]. It is recognised that the quality of life of epileptics differs between countries and there is a need to understand the position of different peoples with epilepsy in their social contexts [12].

Various tools have been developed to assess the quality of life of epileptics. These include the Liverpool and the Quality of Life in Epilepsy (QOLIE 89) scales [13]. The QOLIE 10 is a short screening tool developed from the QOLIE 89 and provides useful and reliable information for initial assessment or follow up [11,14,15]. This study was therefore undertaken to determine the quality of life of chronic epileptic patients in Ibadan.

Materials and methods

Thirty-two epileptic patients attending the neurology clinic of the University College Hospital, Ibadan, were studied. They comprised 24 males and 8 females. They were studied during routine clinic visit and information was obtained from the subjects and from eyewitness accounts of seizures. Epilepsy was confirmed by a history of at least two unprovoked stereotyped seizures. Excluded were subjects with a history of head injury, febrile seizures and meningitis. Patients with co-morbid chronic diseases like asthma, diabetes, hypertension, tuberculosis and heart failure were also excluded.

All subjects had electroencephalography done. The seizures were classified according to the International League Against Epilepsy criteria [16]. The QOLIE 10 questionnaire was administered to the subjects and information was obtained regarding to feeling of energy, depression, ability to drive or operate machinery, memory difficulties, apprehension about subsequent seizures, employment, and physical, mental and social limitations. Social class was defined as low or high based on occupation and estimate of income. The total scores were added up (range 10-30). Higher scores indicated worse quality of life.

Data were analysed using Epi info 6 computer package. The Student's t test was used to assess for differences between continuous variables. A p value of 0.05 or less was considered significant.

Results

Thirty-two subjects were studied comprising 24 males and eight females. The mean age of the subjects was 26.8 years with a range of 16-65 years. The mean age was 29.6 years in the males and 23.8 years in the females. Eleven of the subjects (35.5%)

were students, nine (29%) were traders, two (6.2%) were civil servants, four (12.4%) were unemployed, and one each (3.1%) was a cleaner, cobbler, electrician, farmer, tailor and a housewife.

Twenty-one subjects (87.5%) were on single drug treatment of their epilepsy, six were on dual therapy while one was on three drugs. Four of the subjects were off antiepileptic medications. Carbamazepine and phenytoin were the main antiepileptic medications and each was being used by 12 (42.9%) of the subjects. Phenobarbitone was used by four (14.3%) subjects.

The mean duration of epilepsy in the study subjects was 137 months with a range of 3- 420 months. Only two subjects had epilepsy duration of less than 18 months. Twenty-seven subjects (87.1%) were classified as having generalised tonic clonic seizures, three (9.7%) as complex partial, and one (3.2%) as having absence seizures. The mean quality of life (QOLIE) score was 16.4 with a range of 10 to 30. The mean score was 15.5 in the males and 19.2 in the females. The difference was statistically significant ($P=0.04$).

Fifteen subjects (46.8%) reported feeling of reduced energy all or most of the time and this was the commonest reported measure of impaired quality of life. This was followed by memory disturbance reported by 11 subjects (34.4%). Fear of experiencing a seizure during the next 4 weeks was significant in eight subjects (25.8%) and this was the number that also reported having felt generally bad during the four weeks preceding the examination. A feeling of depression was experienced frequently by seven (22.6%) of the subjects while social limitations were experienced by six (16.7%). Only one (3.1%) subject felt that anti-epileptic drugs affected his physical functioning while none felt that the drugs affected their mind. Similarly, no subject experienced difficulty with driving or operating any machinery. These findings are summarised in Table 1.

Table 1: Findings on the QOLIE 10 questionnaire

Test item	Frequency	%
1. Loss of energy	15	46.8%
2. Memory problems	11	34.4%
3. Fear of seizures	8	25.8%
4. General well-being	8	25.8%
5. Depressed feeling	7	22.6%
6. Social limitations.	5	16.7%
7. Work limitations	3	10.3%
8. Physical effects of medications	1	3.1%

Quality of life scores were significantly worse in subjects who had at least one seizure during the month preceding the interview ($P=0.003$). Subjects taking more than one anti-epileptic drug and those over the age of 25 years also had worse quality of life scores. These differences were however not statistically significant. There was no association between seizure type or social class with quality of life scores. These findings are shown in Table 2. Quality of life scores progressively worsened with duration of epilepsy but this was however not statistically significant (Table 3).

Table 2: QOLIE scores and subjects characteristics

Characteristic		QOLIE scores	P value
Age	<25 years	12.7 (3.3)	0.18
	>25 years	17.4 (6.3)	
Sex	Male	15.5 (5.5)	0.04*
	Females	19.2 (4.7)	
No. of anti-epileptic drugs	1	15.75 (5.1)	0.13
	>1	19.2 (6.3)	
Social Class	Low	17.6 (5.6)	0.18
	High	14.8 (5.2)	
Recent convulsion	None	14.3 (4.5)	0.003*
	1 or more	20 (5.2)	
Seizure type	Generalised	16.25 (3.9)	0.93
	Partial	16.48 (5.8)	

*Significant

Table 3: Relationship of quality of life to duration of epilepsy

Duration of epilepsy	Frequency	Mean Qolie score
0- 24 months	3	14.6 (3.2)
25- 60 months	6	15.6 (3.3)
61-120 months	6	15.6 (5.6)
>120 months	17	17.3 (6.5)

$P = 0.82$

Discussion

The commonest aspects of quality of life affected in this study were decreased energy and memory impairment. These may be a reflection of the side effects of anti-epilepsy medication. This is because the subjects on more than one antiepileptic drug had worse quality of life scores than those on only one drug. While there are reports that use of anti-epileptic medications did not influence the quality of life of epileptics [17], it is generally agreed that reducing all forms of side effects is important in improving the quality of life of people with epilepsy [18].

Most subjects in this study did not report impaired social functioning or work limitations. This would suggest that the epileptic subjects in this study do not feel markedly stigmatised. Studies in the developed world have however shown that up to 36% of subjects report social limitations [10]. Many reports from developing countries have shown that epilepsy is a highly stigmatised disease akin to leprosy and mental illness [19]. In Nigeria, earlier studies have shown that epileptics were shunned at work, school and in the society [20]. Later studies however report that school, work, and social limitations were not common because family support was very strong [21]. A similar finding was reported from Zimbabwe where the main problems reported, just as in this study, were cognitive [22]. The numbers of subjects in this study is however not sufficient to make a definite conclusion on the status of stigmatization of Nigerian epileptics.

Difficulties with driving vehicles and operating machinery were common in some studies [10] but this was not so in this study. This aspect of quality of life may not be relevant to most Nigerian epileptics as most subjects do not drive or operate machinery.

The most important determinant of impaired quality of life in this study is the occurrence of recent convulsions. This finding has been previously documented [7]. This emphasises the need for adequate seizure control to improve quality of life. The females in this study had significantly worse quality of life scores. The reason for this is not clear and other studies have reported that females had a better quality of life [23].

Duration of epilepsy and use of many antiepileptic drugs appeared not to be significantly associated with poorer quality of life in this study and these have also been previously reported [23]. This is understandable because a longer duration of epilepsy and use of anti-epileptic drugs are associated with more frequent complications and side effects. Age, sex epilepsy type and social class were not related to quality of life of epileptics in this study.

Conclusion

Drug side effects and poor seizure control appear to be the most important determinants of quality of life of the subjects in this study. The size of this study is however not sufficient to conclude if this is the general pattern in Nigerian epileptics. Future larger case control studies are needed to determine this. Measures of quality of life need to be taken into consideration in the management of Nigerian epileptics in order to improve the morbidity.

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